From: Watts, John (Feinstein)

**Sent:** Friday, August 1, 2014 6:42 AM

**To:** 'Tom Birmingham'; Roger K. Patterson (rpatterson@mwdh2o.com) (rpatterson@mwdh2o.com)

CC: Bernhardt, David L.; Burman, Brenda W

**Subject:** Two pieces that are still missing from the water language....

Are the language on protection of State Water Project contractors and area of origin water rights. A couple of questions:

- 1) What is the status of these two provisions?
- 2) When do you think you will have draft language (which other water districts and in some cases others will certainly want to review)?

The House is submitting proposed changes to the language by the end of next week. I don't think we need to have these issues resolved by then, but it would be helpful to have drafts of each for consideration by that point.

Thanks.

From: Patterson, Roger K

Sent: Friday, August 1, 2014 7:13 AM

To: Watts, John (Feinstein)

CC: Tom Birmingham; Bernhardt, David L.; Burman, Brenda W

Subject: Re: Two pieces that are still missing from the water language....

John. Stuart, Tom and I have worked out language. Stuart will be sending to you and Kiel this morning.

On Aug 1, 2014, at 6:42 AM, "Watts, John (Feinstein)" < John Watts@feinstein.senate.gov> wrote:

Are the language on protection of State Water Project contractors and area of origin water rights. A couple of questions:

- 1) What is the status of these two provisions?
- 2) When do you think you will have draft language (which other water districts and in some cases others will certainly want to review)?

The House is submitting proposed changes to the language by the end of next week. I don't think we need to have these issues resolved by then, but it would be helpful to have drafts of each for consideration by that point.

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From: Marklund, Chris

**Sent:** Friday, August 1, 2014 9:36 AM

To: 'Tom Birmingham'
CC: 'dbernhardt@bhfs.com'
Subject: BOR Reprogramming

**Attachments:** image001.jpg; image002.png; image003.jpg

Tom,

I just got a call from E&W Approps regarding the San Luis Drain Project (SLDP). The Bureau has requested reprogramming authority from the Committee.

As I understand the facts: Westlands filed a motion in the courts regarding the SLDP requesting the Bureau stop their work on the project for ~6 months to allow negotiations to proceed. The judge approved the motion and the Bureau requested that it be allowed to reprogram the funds in FY14 that would have otherwise gone to the SLDP and allocate them to other Bureau priorities. The Bureau made that request to the committee today.

Are you guys OK with the Bureau's reprogramming request for the FY14 SLDP appropriations?

I need to get back to the Committee today with our thoughts.

Thank you.

Chris

Chris Marklund Legislative Director Rep. David Valadao 1004 Longworth House Office Building Washington, DC 20024

Ph: 202-225-4695 Fax: 202-225-3196

Chris.Marklund@mail.house.gov

Please follow Rep. David G. Valadao on Facebook, Twitter, and Instagram







From: Marklund, Chris

**Sent:** Friday, August 1, 2014 2:30 PM

**To:** 'Tom Birmingham' **CC:** 'dbernhardt@bhfs.com'

**Subject:** RE: BOR Reprogramming

Attachments: image001.jpg; image002.png; image003.jpg

Tom,

I should have asked this when we were on the phone. See my note below re: San Luis Drain reprogramming authority. Do you all have any objections to the Bureau's request?

Thank you.

Chris

--

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From: Tom Birmingham

Sent: Friday, August 1, 2014 4:00 PM

To: Marklund, Chris

Subject: Re: BOR Reprogramming

Chris,

Westlands does not object to the refunding request.

Thank you,

Tom

Sent from my iPhone

On Aug 1, 2014, at 2:31 PM, "Marklund, Chris" < Chris. Marklund@mail.house.gov> wrote:

Tom,

I should have asked this when we were on the phone. See my note below re: San Luis Drain reprogramming authority. Do you all have any objections to the Bureau's request?

Thank you.

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Chris.Marklund@mail.house.gov

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<image001.jpg>

<image002.png>

<image003.jpg>

From: Watts, John (Feinstein)

Sent: Friday, August 8, 2014 1:29 PM

To: Roger K. Patterson (rpatterson@mwdh2o.com) (rpatterson@mwdh2o.com); Tom Birmingham

CC: Burman, Brenda W; Bernhardt, David L.

Subject: I just had a discouraging phone call with Mike Connor and Letty Belin; Karla, Mark and Chuck from

the State; and Karen Hyun from NMFS

I can't talk right now but could talk from 530 -7 eastern time this evening, or 11 am to 3 pm eastern time tomorrow.

Let me know what is a good time for you.

From: Patterson, Roger K

Sent: Friday, August 8, 2014 1:31 PM

To: Watts, John (Feinstein)

CC: Tom Birmingham; Burman, Brenda W; Bernhardt, David L.

Subject: Re: I just had a discouraging phone call with Mike Connor and Letty Belin; Karla, Mark and Chuck from the

State; and Karen Hyun from NMFS

Can talk between 5:30 and 7:00 today -when ever works best.

On Aug 8, 2014, at 1:28 PM, "Watts, John (Feinstein)" < John Watts@feinstein.senate.gov > wrote:

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From: Burman, Brenda W

Sent: Friday, August 8, 2014 1:40 PM

To: Watts, John (Feinstein)

CC: Patterson, Roger K; Tom Birmingham; Bernhardt, David L.

Subject: Re: I just had a discouraging phone call with Mike Connor and Letty Belin; Karla, Mark and Chuck from the

State; and Karen Hyun from NMFS

Tonight works for me.

Sent from my iPhone

On Aug 8, 2014, at 1:28 PM, "Watts, John (Feinstein)" < John Watts@feinstein.senate.gov > wrote:

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From: Tom Birmingham

Sent: Friday, August 8, 2014 1:43 PM

To: Patterson, Roger K

CC: Watts, John (Feinstein); Burman, Brenda W; Bernhardt, David L.

Subject: Re: I just had a discouraging phone call with Mike Connor and Letty Belin; Karla, Mark and Chuck from the

State; and Karen Hyun from NMFS

I am not available this afternoon. Can we talk tomorrow?

Sent from my iPhone

On Aug 8, 2014, at 1:31 PM, "Patterson, Roger K" < RPatterson@mwdh2o.com > wrote:

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On Aug 8, 2014, at 1:28 PM, "Watts, John (Feinstein)" < John Watts@feinstein.senate.gov> wrote:

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From: Watts, John (Feinstein)

**Sent:** Friday, August 8, 2014 1:45 PM **To:** 'Tom Birmingham'; Patterson,Roger K **CC:** Burman,Brenda W; Bernhardt, David L.

Subject: RE: I just had a discouraging phone call with Mike Connor and Letty Belin; Karla, Mark and Chuck

from the State; and Karen Hyun from NMFS

Tomorrow the best times for me are between 11 am and 3 pm eastern time. Is there some time during that period that works for everyone?

**From:** Tom Birmingham [mailto:tbirmingham@westlandswater.org]

**Sent:** Friday, August 08, 2014 4:43 PM

To: Patterson, Roger K

Cc: Watts, John (Feinstein); Burman, Brenda W; Bernhardt, David L.

Subject: Re: I just had a discouraging phone call with Mike Connor and Letty Belin; Karla, Mark and Chuck from the

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Sent from my iPhone

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From: Patterson, Roger K

Sent: Friday, August 8, 2014 2:08 PM

To: Watts, John (Feinstein)

CC: Tom Birmingham; Burman, Brenda W; Bernhardt, David L.

Subject: Re: I just had a discouraging phone call with Mike Connor and Letty Belin; Karla, Mark and Chuck from the

State; and Karen Hyun from NMFS

Can do then. Earlier better. Thx

On Aug 8, 2014, at 1:45 PM, "Watts, John (Feinstein)" < John Watts@feinstein.senate.gov> wrote:

Tomorrow the best times for me are between 11 am and 3 pm eastern time. Is there some time during that period that works for everyone?

**From:** Tom Birmingham [mailto:tbirmingham@westlandswater.org]

**Sent:** Friday, August 08, 2014 4:43 PM

To: Patterson, Roger K

Cc: Watts, John (Feinstein); Burman, Brenda W; Bernhardt, David L.

Subject: Re: I just had a discouraging phone call with Mike Connor and Letty Belin; Karla, Mark and

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From: Burman, Brenda W

Sent: Friday, August 8, 2014 2:20 PM

To: Patterson, Roger K

CC: Watts, John (Feinstein); Tom Birmingham; Bernhardt, David L.

Subject: Re: I just had a discouraging phone call with Mike Connor and Letty Belin; Karla, Mark and Chuck from the

State; and Karen Hyun from NMFS

Available

Sent from my iPhone

On Aug 8, 2014, at 2:07 PM, "Patterson,Roger K" < <a href="mailto:RPatterson@mwdh2o.com">RPatterson@mwdh2o.com</a> wrote:

Can do then. Earlier better. Thx

On Aug 8, 2014, at 1:45 PM, "Watts, John (Feinstein)" < John Watts@feinstein.senate.gov> wrote:

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**From:** Tom Birmingham [mailto:tbirmingham@westlandswater.org]

**Sent:** Friday, August 08, 2014 4:43 PM

**To:** Patterson, Roger K

Cc: Watts, John (Feinstein); Burman, Brenda W; Bernhardt, David L.

Subject: Re: I just had a discouraging phone call with Mike Connor and Letty Belin;

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From: Patterson, Roger K

Sent: Friday, August 8, 2014 3:51 PM

To: Burman, Brenda W

**CC:** Watts, John (Feinstein); Tom Birmingham; Bernhardt, David L.

Subject: Re: I just had a discouraging phone call with Mike Connor and Letty Belin; Karla, Mark and Chuck from the

State; and Karen Hyun from NMFS

Let's plan on 8 am tomorrow (11 in DC).

Can use 213-217-7888. 7781#

On Aug 8, 2014, at 2:19 PM, "Burman, Brenda W" <BBurman@mwdh2o.com> wrote:

Available

Sent from my iPhone

On Aug 8, 2014, at 2:07 PM, "Patterson, Roger K" < RPatterson@mwdh2o.com > wrote:

Can do then. Earlier better. Thx

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**From:** Tom Birmingham [mailto:tbirmingham@westlandswater.org]

**Sent:** Friday, August 08, 2014 4:43 PM

**To:** Patterson, Roger K

**Cc:** Watts, John (Feinstein); Burman,Brenda W; Bernhardt, David L. **Subject:** Re: I just had a discouraging phone call with Mike Connor and Letty Belin; Karla, Mark and Chuck from the State; and Karen Hyun from

**NMFS** 

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From: Tom Birmingham

Sent: Friday, August 8, 2014 4:32 PM

To: Patterson, Roger K

CC: Burman, Brenda W; Watts, John (Feinstein); Bernhardt, David L.

Subject: Re: I just had a discouraging phone call with Mike Connor and Letty Belin; Karla, Mark and Chuck from the

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Available

Sent from my iPhone

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To: Patterson, Roger K

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Bernhardt, David L.

**Subject:** Re: I just had a discouraging phone call with Mike Connor and Letty Belin; Karla, Mark and Chuck

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From: Tom Birmingham

Sent: Saturday, August 9, 2014 8:34 AM

To: 'Watts, John (Feinstein)'; 'Patterson, Roger K'; 'Burman, Brenda W'; 'Bernhardt, David L.'

**Subject:** FW: Adminstrative list

Attachments: Administrative solutions (final as sent to JP) (09-09-13).docx

Importance: High

#### Bonham's list.

**From:** Bonham, Chuck@Wildlife [mailto:Chuck.Bonham@wildlife.ca.gov]

Sent: Monday, September 09, 2013 11:17 AM

To: Peterson, James

Cc: Murillo, D@USBR; Ren\_Lohoefener@fws.gov; Cowin, Mark@DWR; Will Stelle - NOAA Federal <will.stelle@noaa.gov>

(will.stelle@noaa.gov); Kightlinger, Jeff; Tom Birmingham (tbirmingham@westlandswater.org)

**Subject:** Adminstrative list

Importance: High

James,

Find attached the administrative solutions list from our Tahoe meeting. I was able to coordinate with the Bureau, Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Water Resources. I was then able to share a working draft with Jeff and Tom for feedback.

The costs are estimates. Follow up questions should go to the speak Directors related to the topic.

Sorry for the delay. I think my tasks was to create the list and gather input. Errors in translation are mine.

Please confirm receipt.

Chuck

### Administrative solutions

At the small group discussion on August 16, 2013, discussion focused on a list of administrative solutions in the near and longer term. The list includes the following items.

## Available for 2013-2014.

1. Incidental Take, operational flexibility. Within the structure of the current Biological Opinions, improve data availability, reporting procedures, and analytical methods through the smelt working group and WOMPT. These improvements would be used to better, and more promptly, communicate the relative risks to the various species and water supplies when making regulatory decisions in 2014. The intent is to provide the maximum degree of operational flexibility when making Service Determinations. The Bureau, Service, and California Departments support this action. California Department of Fish and Wildlife would work closely with Fish and Wildlife Service to ensure legal and permitting consistency.

Cost: no cost

Target: during 2014 operational decision making Result: possible benefit in the near term, 2014

2. Old and Middle River Index. Develop a pilot project and implement by December 2013. The project will test if using an index rather than actual United States Geological Survey gauge data to determine Old and Middle River (OMR) negative-reverse flow enables compliance with the Biological Opinion in wither 2013 and spring 2014. Note that the "Hutton Model," which the Department of Water Resources employs already in various efforts, may be a useful tool with regards to this solution. The Bureau, U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Department of Water Resources, and California Department of Fish and Wildlife support this action.

Cost: approximately \$100,000

Target: December 2013

Result: possible benefit in the near term, 2014.

3. Turbidity model. With the leadership of Metropolitan Water District, new turbidity models are being developed, refined, and utilized for use between federal and state agencies and public water agencies to improve real-time turbidity management during the high flow, first flush events to avoid drawing turbidity into the south Delta. This improved model would be used within the Delta Conditions Team to better inform the WOMPT. The Bureau, Service, NMFS, and California Departments support this action.

Cost: Approximately \$100,000 (Metropolitan)

Target: Consultants to complete model revision end of October

Result: For decision-making use in 2014

4. Temporary barrier(s). Installation of temporary head of Old River barrier to minimize movement of the San Joaquin River into the South Delta and straying of salmonids. Pursue the studies currently being developed in the South Delta Science Collaborative (NMFS-DWR sponsored) to evaluate hydrodynamic processes and how such processes could be managed to minimize entrainment of salmonids with consequent loses to predation and salvage. Employ information to better inform decisions regarding barrier placement and effects on supply.

Cost: Approximately \$700,000 (contact NMFS for additional details)

Target: April – May 2014

Result: better information possible in 2014

5. Water purchases and transfers. Take all feasible steps to further streamline water transfer processes at the federal and state level. These include refining the schedule for the 2014 water transfers process; improving outreach in support of local water transfer programs; forming work groups to prioritize technical issues and define specific objectives to address real water supply, cumulative impacts, and third party impacts; preparing a technical information guide for those intending to propose 2014 water transfer proposals; and, identifying and evaluating measures to simplify the transfer process and reduce the administrative cost of transfers. This action should not focus solely on additional process at the expense of implementing simple measures such as identifying a single agency point of contact, assigning dedicated staff to a multi-agency review team, and regular coordination with transfer applicants to resolve conflicts.

Cost: Likely within existing budget

Target: End of year 2013

Result: Streamlined water transfer process for 2014

## Longer-term, not available for 2013-2014.

6. Delta smelt life cycle model. Life cycle models allow rapid evaluation of the consequences on species' populations of proposed management actions that affect survival and capacity of specific species' life stages. These models are more prevalent in salmon management. Move to implement the Fish and Wildlife Service memorandum, dated August 15, 2013, regarding the next steps in the Newman et al. delta smelt life cycle model. Completing the proposed implementation schedule would enable a properly vetted and developed model to be used in managing delta smelt entrainment as early as the winter of 2015, with test applications likely in the fall of 2013 and summer of 2014. Consider expanding the scope to include side-by-side analyses using both the Newman model and the Maunder-Deriso model to inform decisions. The Bureau, Service, and California Departments support this action.

Cost: \$450,000 per year/each year/for three years, 2014-2017

Target: initial deployment of tool in late 2013 with full use estimated for 2015

Result: possible benefit in the mid-term, but potential for substantial and dramatic benefits in 2015 and beyond

7. Technology advances for smelt monitoring. The monitoring approach for smelt is many decades old, based on original efforts for species other than smelt and based on outdated or limited technology. Improving the assessment of smelt abundance and distribution, when coupled with life cycle and other model advancements, is expected to dramatically improve management of smelt protections while further minimizing impacts of protective measures on water operations. See U.S. Fish and Wildlife Service working draft memorandum, dated August 12, 2013. Implement a 3-5 year study and monitoring improvement project. Determine relative efficiencies of standard monitoring survey approaches and implement improvements. Improvements would likely include random sampling protocols, increased survey effort, and spatial coverage. Improvements to monitoring should include better sampling methods to better capture species distribution, both within the water column and throughout the species' ranges. The five directors are also on the governing body of the Interagency Ecological Program (IEP). The Bureau, Service, NMFS, California Water Resources, and California Fish and Wildlife support this action, and will seek reprioritization of IEP activities and funding towards this action.

Cost: Approximate annual costs \$2.5 million

Target: Completion of study and phased implementation of results over a 3-5 year timeline Result: 21<sup>st</sup> century technological approaches to data collection and use

8. Hatchery operation coordination. Develop and implement a process for better future coordination of hatchery releases to improve survivability. In some instances, hatchery fish releases could be better timed to coincide with adequate natural flows or other operational releases. Reclamation and FWS are committed to convene a deputy-level discussion in 2013 to outline a coordination plan for implementation in water year 2014, as applicable.

Cost: no cost

Target: water year 2014, as applicable Result: improved hatchery release survival

9. Water quality. Water quality objectives are critical. In some limited instances, those objectives, however, have a disproportionately high water supply impact or shift a significant fishery concern to another part of the system. In the past, state and federal resources and water quality agencies have collaborated to propose, review and approve temporary amendments to such objectives or to move compliance points in order to avoid disproportionate results. Identify such opportunities requires continued Reclamation forecasting and prompt inter and intra agency coordination and communication. It also requires an effective coordination mechanism involving the Department of Water Resources, Reclamation, the SWP and CVP

contractors, the state and federal fishery agencies, and the State Water Resources Control Board, at a minimum.



From: Watts, John (Feinstein)

Sent: Sunday, August 10, 2014 8:26 AM

To: 'tbirmingham@westlandswater.org'; 'RPatterson@mwdh2o.com'; 'BBurman@mwdh2o.com';

'DBernhardt@BHFS.com'; 'bradley.cavallo@gmail.com'; 'dfullerton@mwdh2o.com'; Yeung, Felix (Feinstein);

Duck, Jennifer (Feinstein); Peterson, James (Feinstein)

**Subject:** Further thoughts on how to proceed -- confidential

The more I think about it, I think it would be useful to write up over the next couple of days a 3-4 page argument in favor of the policy merits of our preliminary draft proposal to send to Mike Connor, and to senior officials at Commerce and the State. I would include the 4 following sections in the analysis:

- 1) Emphasis on Secretarial discretion to manage fisheries based on science to avoid jeopardy and lack of prescriptive language mandating specific outcomes;
- 2) Policy merit of the basic idea of trying to work into the process some effort to minimize water supply impacts without diminishing anything in the ESA on protecting species;
- 3) Policy merit of key specific ideas in proposal (perhaps a paragraph each on a) revising the incidental take level for smelt, b) doing daily trawls for smelt from December to March when there are turbid waters near the pumps, c) trap-and-barge for salmon, and d) evaluating the potential benefits to salmon from a broad range of management measures, and considering the adverse consequences to other affected interests from each); and
- 4) One paragraph only on resources, highlighting that there is double the additional funding for new smelt and salmon measures in the Senate Energy and Water bill as compared to what we think it would cost to implement this proposal (I would propose to attach the spreadsheet on cost estimates that MWD has developed).

If you agree doing this 3-4 page paper makes sense, I would ask on Monday for Brad's help on the merit of the salmon ideas in the proposal, and for Dave Fullerton's help on the merit of the smelt ideas in the proposal. I would also want to work with David Bernhardt on the piece on the policy merit of attempting to minimize water supply impacts.

My goal would be to send a draft of this policy paper for each of you to review Monday evening.

Obviously, there are political arguments to be made as well, but I would focus this written paper on the policy arguments for the preliminary proposal.

Some of the policy points we would make in this paper we have already outlined in the explanatory documents for each of the draft titles of the proposal -- but I think it is useful to refine them and put them in one place for senior decisionmakers.

I would propose to include the chart/graph on the very low water allocations to south-of-Delta agriculture since 2007 as part of the rationale for having some effort to minimize water supply impacts while keeping everything in the ESA on protecting species.

If you don't agree that this is a helpful document to produce, please let me know today if possible. Thanks.

From: Watts, John (Feinstein)

Sent: Sunday, August 10, 2014 9:02 AM

To: 'tbirmingham@westlandswater.org'; 'RPatterson@mwdh2o.com'; 'BBurman@mwdh2o.com';

'bradley.cavallo@gmail.com'; 'DBernhardt@BHFS.com'; Yeung, Felix (Feinstein); Peterson, James (Feinstein);

Duck, Jennifer (Feinstein)

Subject: A few other specific points made on Friday's call

Hi all. I talked to most of you yesterday about the big picture of Friday's call with Mike Connor and his team; Karla, Mark and Chuck from the State; and Karen Hyun of NMFS (Will Stelle is returning from vacation tomorrow).

There were also a few specific points of feedback offered that I want to share with you:

- 1) Karla Nemeth suggested that for next year, perhaps one approach would be to have the State and federal governments assist with creating a clearinghouse for water transfers. Mark Cowin added that while he thought we should leave water transfers to the private market as a general matter, there is an argument for having some governmental involvement in critically dry years or the aftermath of critically dry years.
- 2) In response to my point that there is more than enough funding in the Senate Energy and Water bill to pay for this preliminary proposal and we would push the House to accept that funding in an omnibus if we reach agreement on a bill, Mike Connor and Letty Belin asked what mandates would still be imposed on them if there is a CR next year. Specifically, they asked if some additional activities mandated by specific dates in the bill could be made subject to the availability of funding. I told them that I thought the agencies should not need additional funding to explain why they adjust pumping levels, so that I do not believe that requirement should be pushed back, but I would think about whether specific additional studies or activities could be made subject to the availability of funding. I think this is a fair request for the agencies to make, but I also think it will be hard to get the House to agree to language of this kind.
- 3) The one thing Karen Hyun of NMFS said was that NMFS thought certain things in the proposal (left unspecified) were not feasible. I believe she is referring at a minimum to the required quantitative estimates of increased percentages of higher through-Delta salmon survival outcomes from different management measures. I believe the core of this section that we cannot drop is the requirement for NMFS to consider alternative management measures in comparison to the water pumping restrictions, and in particular to compare the adverse consequences for other affected interests like farming.

By the middle of this week, I intend to draft for your consideration a proactive revision to this section of the preliminary proposal that keeps the core requirement I just mentioned, but gives somewhat greater flexibility to NMFS in what the agency must do in order to compare the alternative management measures. Brad or anyone else, I would welcome any thoughts on how to do this.

From: Tom Birmingham

**Sent:** Tuesday, August 12, 2014 6:42 AM

To: 'Nelson, Damon'

CC: kiel.weaver@mail.house.gov; 'Bernhardt, David L.'

**Subject:** (b)(2) Language

**Attachments:** (b)(2) Crediting Language.docx; 12-17-03 DOI Memo.pdf

## Damon,

Attached is the draft language I promised to provide when we met two weeks ago. I am also attaching the DOI guidance memorandum on which it is based. Notwithstanding the acknowledgement in this memorandum that "actions taken pursuant to the 1995 Water Quality Control Plan and State Water Resources Control Board Decision D-1641 ("the 1995 WQCP") involve the dedication and management of Central Valley Project yield for long-term fishery beneficial use and protection," and "the fishery beneficial uses and objectives under the 1995 WQCP and in Reclamation's water right permits help fulfill the fish wildlife and habitat restoration purposes and measures authorized by Section 3406(b)," there are times when Interior does not count towards (b)(2) fishery actions prescribed by the 1995 WQCP, if doing so would prevent the implementation of other non-mandatory fishery actions.

I am in DC and would like to come by this morning to discuss this language and other issues. Please let me know if you are available.

Tom

All Central Valley Project water, except Central Valley Project water released from the Friant Division pursuant to the San Joaquin River Restoration Settlement Act (Public Law 111-11) and water released pursuant to the December 2000 Trinity River Mainstem Fishery Restoration Record of Decision, used to implement an action undertaken for a fishery beneficial purpose that was not imposed by terms and conditions existing in licenses, permits, and other agreements pertaining to the Central Valley Project under applicable State or Federal law existing on October 30, 1992, shall be credited to the quantity of Central Valley Project yield dedicated and managed under this section; provided, that nothing herein shall affect the Secretary's duty to comply with any otherwise lawful requirement imposed on operations of the Central Valley Project under any provision of federal or state law.

# United States Department of the Interior



DEC 1 7 2003



Fish and Wildlife Service California/Nevada Operations Office 2800 Cottage Way, Suite W-2606 Sacramento, California 95825-1846

Bureau of Reclamation Mid-Pacific Region 2800 Cottage Way Sacramento, California 95825-1898

## . Memorandum

To:

Central Valley Operations Manager, Bureau of Reclamation

Sacramento, California

Field Supervisor, Sacramento Fish and Wildlife Offi

Sacramento, California

From:

Regional Director, Bureau of Reclamation-

Sacramento, California

Manager, California/Nevada Operations Office

Sacramento, California

Subject:

Guidance for Implementation of Section 3406(b)(2) of the CVPIA

This memorandum provides guidance and direction regarding modeling and planning of the annual implementation of Section 3406(b)(2) of the Central Valley Project Improvement Act (hereinafter, "Section 3406(b)(2)" or "(b)(2)"). This guidance concerns Interior's annual dedication and management of Central Valley Project yield pursuant to Section 3406(b)(2), in accordance with the "Department of the Interior Decision on Implementation of Section 3406(b)(2) of the Central Valley Project Improvement Act May 9, 2003 Decision" ("the May 9, 2003 Decision") and with the June 3, 2003 ruling by United States Court of Appeals for the Ninth Circuit. The Ninth Circuit held that the "non-mandatory language of [Section 3406(b)(2)] gives Interior the discretion to allocate the 800,000 acre-feet among fish and wildlife, water quality, and endangered species obligations, as long as Interior's allocation gives effect to the hierarchy of purposes established in Section 3406(b)(2)." This guidance supplements the May 9, 2003 Decision, in light of the June 3, 2003 Ninth Circuit ruling.

The October 1 through September 30 accounting period described in the May 9, 2003 Decision allows Interior to implement actions that effectuate the "hierarchy of purposes" referred to in the June 3, 2003 Ninth Circuit decision. The May 9, 2003 Decision specifically provides for a target of up to 200,000 acre-feet of use in the October through January period, primarily for high priority fish and wildlife uses. Moreover, actions taken pursuant to the 1995 Water Quality Control Plan and State Water Resources Control Board Decision D-1641 ("the 1995 WQCP") involve the dedication and management of Central Valley Project yield for long-term fishery beneficial use and protection. Such actions are not taken to help meet agricultural or municipal and industrial water quality standards that are set forth in the 1995 WQCP. Most of the fishery

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002156

beneficial uses and objectives under the 1995 WQCP and in Reclamation's water right permits help fulfill the fish, wildlife, and habitat restoration purposes and measures authorized by Section 3406(b). Consistent with the June 3, 2003 Ninth Circuit decision, much of the (b)(2) water that is dedicated and managed annually to help meet fishery beneficial use and protection objectives of the 1995 WQCP serves Section 3406(b)(2)'s "primary purpose" of fish, wildlife, and habitat restoration. Therefore, the implementation of Section 3406(b)(2) in accordance with the May 9, 2003 Decision and with this supplemental guidance effectuates the "hierarchy of purposes" in Section 3406(b)(2).

Reclamation and the Service agree to start each year with targets of up to 300,000 acre-feet of (b)(2) water annually for high priority fish and wildlife actions. These may include fish actions on Clear Creek; the Sacramento, American, and Stanislaus Rivers; and in the Delta. Reclamation and the Service further agree with targets of up to 500,000 acre-feet of (b)(2) water annually to help meet WQCP and ESA obligations. The 300,000 acre-feet for fish and wildlife actions will include the target in the May 9 Decision of up to 200,000 acre-feet of use in the October through January period. (Exceeding 200,000 acre-feet can only occur after the Service and Reclamation confer and the Manager of the Service's California Nevada Operations Office and the Director of Reclamation's Mid-Pacific Region concur in writing). Additionally, if the projected and/or realized WQCP/ESA costs for the accounting year exceed the 500,000 acre-feet of (b)(2) water, the Service and Reclamation will confer to determine the best course of action. That conference will address the most beneficial use of the remaining (b)(2) water for fish and wildlife management actions that year, whether they are for fish, wildlife, and habitat restoration purposes or to help meet WQCP standards and ESA obligations. Exceeding 500,000 acre-feet of (b)(2) water used for the WQCP/ESA costs when there are other unmet high priority fish actions. as specified by the Service in coordination with NOAA Fisheries and California Department of Fish and Game, will require written concurrence of both the Manager of the Service's California Nevada Operations Office and the Director of Reclamation's Mid-Pacific Region to allow for proper planning and coordination with project operations.

This guidance does not establish caps but assures that priority actions are carefully weighed against the standards in the WQCP designed for fish and wildlife benefits. These targets should be used in developing assumptions in the modeling. Actions and priorities can be assessed to generally follow this direction. Modeling results will be reviewed to project situations in which adjustments to the targets may be desirable.

The seasonality of actions fits into the accounting period and the time dependent order for determining the priority of actions and need for adjustments to allocations, in general. Fall flow improvements, impacts to export due to Delta Cross Channel gate closures, some wintertime export reductions during fishery migration windows, some wintertime and spring flow and export costs to fishery beneficial uses of the WQCP, Vernalis Adaptive Management Plan (VAMP), and some other spring export reductions during the sensitive estuarine species periods are examples of actions that reflect the seasonality of decisions and operations. Some of the CVP Delta fish actions that cannot be incorporated into the (b)(2) allocations may fall into the Environmental Water Account (EWA) needs.

002157

In annual implementation we can use existing teams and processes to continue to determine priorities of actions and evaluate the consistency with the guidance provided in this memorandum. The May 9 Decision recognizes the considerable coordination that is critical to the implementation of many actions with (b)(2), and implementation of the EWA. The B2IT will advise Reclamation, the Service, the EWAT Team and other members of the Water Operations Management Team (WOMT) when the implementation is varying from the targets and make recommendations for shifting (b)(2) water between such uses. Reclamation and the Service can use input from the WOMT to make informed decisions on priorities of (b)(2) water, although the Directors of Reclamation and the Service will continue to retain final responsibility for such decisions as outlined in the CVPIA, Interior's May 9 Decision and herein.

Reclamation and the Service understand that we must wisely use the discretion provided in the CVPIA and implementation policy in the dedication and management of (b)(2) water each year, taking into consideration fishery conditions, hydrology, reservoir storage, and other associated actions.



002158

From: Nelson, Damon

**Sent:** Tuesday, August 12, 2014 6:51 AM

**To:** Tom Birmingham

CC: Weaver, Kiel; 'Bernhardt, David L.'

**Subject:** RE: (b)(2) Language

I am here all morning. There were two other things we were looking for. Some official reference to the data on scientific take of smelt by biologists. The other was direction to the formula that BoR could use on OMR flows. Or, we can simply use some language to direct BoR to develop a more accurate/scientific way to determine OMR flows beyond what is used now.

**From:** Tom Birmingham [mailto:tbirmingham@westlandswater.org]

**Sent:** Tuesday, August 12, 2014 9:42 AM

To: Nelson, Damon

Cc: Weaver, Kiel; 'Bernhardt, David L.'

**Subject:** (b)(2) Language

Damon,

Attached is the draft language I promised to provide when we met two weeks ago. I am also attaching the DOI guidance memorandum on which it is based. Notwithstanding the acknowledgement in this memorandum that "actions taken pursuant to the 1995 Water Quality Control Plan and State Water Resources Control Board Decision D-1641 ("the 1995 WQCP") involve the dedication and management of Central Valley Project yield for long-term fishery beneficial use and protection," and "the fishery beneficial uses and objectives under the 1995 WQCP and in Reclamation's water right permits help fulfill the fish wildlife and habitat restoration purposes and measures authorized by Section 3406(b)," there are times when Interior does not count towards (b)(2) fishery actions prescribed by the 1995 WQCP, if doing so would prevent the implementation of other non-mandatory fishery actions.

I am in DC and would like to come by this morning to discuss this language and other issues. Please let me know if you are available.

Tom

From: Watts, John (Feinstein)

Sent: Wednesday, August 13, 2014 7:53 AM

**To:** Tom Birmingham; Roger K. Patterson (rpatterson@mwdh2o.com) (rpatterson@mwdh2o.com)

CC: Burman, Brenda W; Bernhardt, David L.; Bradley Cavallo

**Subject:** Confidential: CEQ just called me about the timing of water bill feedback

**Attachments:** rationale for proposal final 8-12-14.docx; proposal cost estimates 8-11-14.xlsx

They got NMFS' comments last night and are hoping to receive DOI's comments today. They will they synthesize the comments, run them by the agencies again for a final review, and then send them to us. It is possible they will send the written comments by tomorrow, more likely by Friday.

I emphasized that we need the agencies' commitment to work with us and a roadmap of how to address their concerns. We agreed that having a conversation with key agency personnel as soon as possible when we get their comments would be helpful. CEQ is going to talk to the agency points-of-contact and try to set up a call by the end of the week, probably on Friday.

Yesterday, I confidentially sent to CEQ, Interior, Commerce, and key State officials the attached rationale for why this legislative proposal is needed and the attached spreadsheet with our estimate of the proposal's costs.

Today I plan to work on proactive revisions to two provisions to be prepared to share with you all first, and then have ready to share with agency staff when we have a call with them, possibly on Friday:

- 1) Temporary operational flexibility during 2014-2015 storms language: After some intensive internal discussion in the Feinstein office, we believe it is critically important to be able to say that no part of the proposal overrides agencies' ability to manage the projects based on the best available science or impose prescriptive outcomes in place of the existing provisions of the biological opinions. Accordingly, we are revising the temporary operational flexibility language to set a target rather than a mandate of operating the CVP and SWP at OMR levels of -7500 cfs for 21 cumulative days of high outflow. For any particular storm, the agencies can impose the RPAs from the biops if they can show it is necessary to do so for avoiding jeopardy, giving great weight to whether or not they are on track to exceed the incidental take levels in the BiOps. If for a particular storm the agencies lower pumping below OMR levels of -7500 cfs due to the presence of significant numbers of fish near the pumps, for example, the period pumping is below OMR levels of -7500 cfs will not count toward the 21 cumulative days of high outflow with significant pumping allowed. If this approach works, we can say that the agencies retain the authority at any point to restrict pumping to avoid jeopardy based on science but we believe we still are likely to get OMR levels of -7500 cfs for 21 days of high outflow (perhaps stretched further over the water year rather than all in December or January).
- 2) Increased survival estimates for salmon: I am virtually certain NMFS staff are going to say that they cannot provide quantitative estimates of increased survival percentages for each of the listed salmonid species and all management measures. I am going to revise this language to require them to provide estimates of increased survival percentages that are quantitative to the extent possible, and qualitative to the extent they cannot fully quantify them. I am going to also make clear that NMFS must rank the management measures to the maximum extent possible by the magnitude of their expected contribution to increased species survival.

I do not propose any changes (except possibly conforming changes based on the revisions described above) at this time to the key operational language requiring NMFS to compare limitations on OMR flows below -5000 cfs and the i/e ratio to other management measures, and in order to find these export restrictions necessary to avoid jeopardy, requiring them to show that any technically feasible alternative management measures with the same or greater increased survival benefits have fewer adverse consequences, including a concise evaluation of adverse consequences to other affected interests. I have copied this language below for your reference:

- "(3) In any analysis of potential jeopardy conducted pursuant to paragraph (2)(B), the Secretary shall explain why implementation of this measure in particular is necessary to avoid jeopardy, including by determining either
  - (A) It is not technically feasible or within federal jurisdiction to achieve any increased survival benefit of the same or greater quantity from broadening or initiating any of the management measures described in subsection (b)(2) or other alternative management measures, including measures implemented with the support of a substantial contribution from water districts; or
  - (B) If it is technically feasible and within federal jurisdiction to implement any such alternative management measures, the adverse consequences of doing so exceed the adverse consequences of limiting OMR flow to levels less negative than -5000 cubic feet per second, including a concise evaluation of the adverse consequences to other affected interests; or
  - (C) If it is technically feasible but not within federal jurisdiction to implement certain such alternative management measures, the Secretary shall specifically describe such determination and the alternative management measure or measures."

# WHY THIS LEGISLATION IS NEEDED TO MAKE SCIENCE-BASED ESA MANAGEMENT WORK BETTER FOR THE CALIFORNIA WATER PROJECTS

## Summary

While this year's historic drought has caused great hardship for many of the 25 million Californians who depend on the Central Valley Project and the State Water Project, the long-term water supply outlook is even worse. This year's zero and five percent water allocations on the projects have capped eight years of unsustainably low water deliveries that have plummeted below previous water supply levels ever since the current operating procedures for the water projects were put in place around 2007. Moreover, despite dedication of a great deal of water for fish that historically would have been used for other purposes or stored for time of shortage, the condition of the listed endangered species have not markedly improved.

A sustainable water supply can be restored while preserving the fundamental premise of the Endangered Species Act (ESA), that agencies decide based on science the measures necessary to protect listed species from jeopardy before taking action. The legislative proposal strives to provide greater benefits to the listed species, with less human cost to the people and the communities who rely on these projects to provide them with a reliable water supply.

Recognizing that a better approach is needed, like former Secretary of the Interior Bruce Babbitt recognized over a decade ago, the proposal seeks to make science-based ESA management work better. The proposal does this through the following steps, which reflect principles of good decision-making where there are competing values at stake:

- Integrates the considerable new science since the biological opinions were issued, 5-6 years ago, into the way they are operated. For example, send out boats to monitor daily for Delta smelt near the water pumps at key time periods, and only reduce water pumping if the smelt are actually there and would be harmed.
- Without prescribing particular outcomes, requires agencies to explain why reductions in pumping levels are necessary to avoid jeopardy and consider other less water-costly alternatives such as barging fish or installing barriers.
- Preserves the upper limits on water pumping in the biological opinions, while requiring
  agencies to consider other management strategies as alternatives before restricting
  pumping further. Simply put, if two alternative measures are equally effective in protecting
  listed species, the agencies should pursue the measure with better overall outcomes,

including fewer harmful effects on other affected interests. Informed by this analysis, the Secretaries of the Interior and Commerce would continue to decide the best course necessary to avoid jeopardy to listed fish.

## The Precipitous Drop in Water Supplies Since 2007

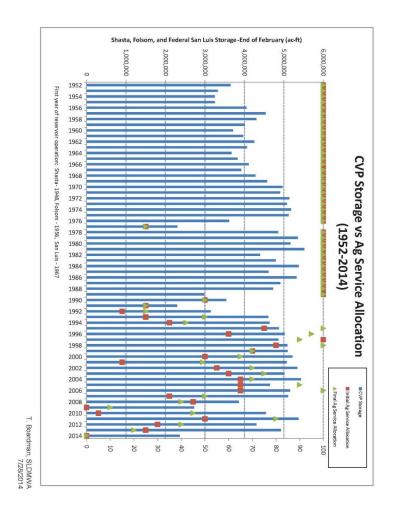
The bar chart on the following page depicts the precipitous drop in water supplies for south-of-Delta agriculture since 2007. The chart compares annual Central Valley Project (CVP) storage, an effective proxy for precipitation levels, with initial and final allocations for south-of-Delta agriculture.

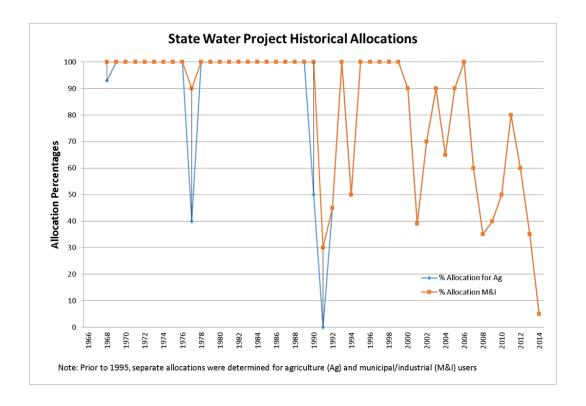
Since 2007, there has been substantial precipitation in six of the eight years, but in only one of those years has the final south-of-Delta agriculture allocation exceeded 50% (the very wet year of 2011) – and it has typically been significantly below 50%. The implications of this chart are striking: Under current operations, many San Joaquin Valley farmers get only a small fraction of their contracted water supplies, in all but the very wettest of years.

The chart also highlights the marked departure of the last six years from the past. The salmon and Delta smelt were listed under the Endangered Species Act in the early 1990's, and the Central Valley Improvement Act was enacted in 1992, so substantial water supply restrictions were in place from the 1990's through 2006. Nevertheless, during this time, final allocations were generally 50% or greater. It is only since 2006 that they have fallen off a cliff.

The current operational regime is not sustainable for those that rely on these projects. Even recognizing the potential benefits of the Bay Delta Conservation Plan (BDCP), which will not be implemented for at least 15 years, the human impacts of this policy regime are real, acute, and destabilizing. Other measures are also needed, such as increased surface and groundwater storage, improved conservation and recycling, and additional water supply investments. However, these measures cannot remedy the water supply shortfall by themselves, and will cost the taxpayers billions of dollars.

The continuation of the current practice will place greater demands on food banks, exacerbate high unemployment that already exists in disadvantaged communities, particularly within the Central Valley, and further frustrate the inability of many families to obtain credit and sustain their livelihoods.





The chart above documents that State Water Project users have suffered the same precipitous decline in water reliability since 2007 as south-of-Delta agricultural users of the Central Valley Project. The Central Valley Project and State Water Project together deliver water to 25 million people. The State Water Project supplies water across California from the Bay Area and Silicon Valley, to the Central Valley, and the Central Coast and Santa Barbara, and to vast Southern California. While urban areas are more likely to have access to multiple sources of water that may be used in drought, the State Water Project is a base supply of high quality water that urban areas use to support groundwater use and replenishment, recycling projects, and regular deliveries.

#### **Secretarial Discretion Reinforced and Maintained**

The proposal maintains the Secretaries' responsibility and discretion to protect listed fish species by avoiding jeopardy, and upholds the imperative of relying on best available science.

The proposal does not require the Secretaries to operate the water pumps at prescribed levels, or dictate particular water operation that ignores the needs of fish. Instead, the Secretaries are merely directed to obtain, document, and implement the best available scientific data so that when they exercise the discretion given to them under existing laws and regulations to either lower or raise water pumping levels, they have the necessary information to explain their decision. The science-based framework of the biological opinions is preserved. For example:

- Under the smelt proposal, there is no requirement that the Secretaries maintain negative 5,000 cubic feet per second (cfs) Old and Middle River flows if lower pumping levels are required to avoid jeopardy to the Delta smelt.
- Under the salmon proposal, the Secretary of Commerce is required to <u>explain</u> the
  basis for raising or lowering OMR flow levels within the range of the biological
  opinion, and to <u>consider</u> how alternative measures compare against water supply
  reductions in avoiding jeopardy to the salmon, but there is no requirement that the
  Secretary adopt one measure or another contrary to her discretion.
- The proposal for the first few storms of the 2014-2015 water year is intended to allow the Secretaries to continue existing management measures found necessary to avoid jeopardy, and the language is being revised to make that clear.

The Secretaries will maintain their <u>role in defining jeopardy</u>, <u>as they do now</u>, <u>based on scientific</u> <u>data</u>, to protect listed species as prescribed by the existing biological opinions.

#### **Integrating New Science into the Management of the Species**

Since the biological opinions for the California water projects were adopted in 2008 and 2009, there has been considerable new science on the smelt and the salmon. The proposal attempts to integrate the new science into the operation of the California water projects, without mandating specific changes in the biological opinions or prescribing particular outcomes.

#### Delta Smelt

<u>Incidental Take.</u> The smelt biological opinion calculated the Delta Smelt Incidental Take Level (ITL) using data from just three years: 2006, 2007, and 2008. Using only three years to calculate the ITL severely limits the method's ability to estimate the biological and physical conditions that are likely to occur during the life of the smelt biological opinion. Increased understanding of the factors associated with Delta smelt salvage from the past several years means that the Fish and Wildlife Service should now be able to use information from before and after 2006 to provide the basis for a more robust ITL.

Increase Monitoring. The proposal allows for more real-time data collection to inform real-time decisions. Numerous analyses of adult smelt salvage patterns have linked salvage to elevated turbidity levels and high negative flows in Old and Middle River. But while the high salvage of Delta smelt tends not to occur without high turbidity in Old and Middle River (OMR), the existence of high turbidity does not guarantee high salvage, even when OMR flows are highly negative. The proposed sampling is designed to test for the presence of adult Delta smelt in Old River as the water becomes turbid following winter storms. If smelt are detected, then Project operations can be modified in time to avoid salvage. If no smelt are detected, then Project operations need not be heavily curtailed.

#### **Salmonids**

<u>Increase Survival Immediately</u>. Studies conducted since 2000 show through-Delta survival of San Joaquin Basin juvenile Chinook has been poor to abysmal (2% to 12%) since 2006. Poor survival has continued despite experimental increases in San Joaquin River flows and decreased water diversions dictated by the biological opinions. Best available science suggests the primary reason for low survival in the Delta is the lack of suitable juvenile salmon habitat and resulting high predation rates. In other words, water diversion decreases and changes in the inflow/export ratio have not enhanced access or quality of salmonid habitat, and therefore have not appreciably affected survival. A long-term solution is needed.

In the short-term, however, measures must be taken to increase survival through the Delta. This proposal mirrors successful programs in the Pacific Northwest that provide safe transport for juvenile salmonids through poor survival environments. While various methods for transport are available, the most successful have been "barging" programs that stay in-river with constantly circulating water. Through barging, juveniles avoid predation but maintain a connection with their migratory path, greatly increasing their chance of survival and successful return as adults. The juvenile wild fish would still naturally spawn upriver and swim themselves to the Delta, before being barged through the Delta. Barging has the potential to dramatically increase the survival of salmonids emigrating from the San Joaquin system, improving from very poor survival rates of 2-12% to high survival rates of 54% to 96%.

Review Management Alternatives. Delta water exports alter water movements in the Delta and can entrain migrating juvenile salmonids. However, based on particle tracking studies, the 2009 Biological Opinion hypothesized a much larger effect (in geographic range and magnitude of importance) than has been supported by more recent and robust acoustic telemetry studies of the salmonids. In addition, the reasonable and prudent alternatives in the biological opinion did not adequately address other stressors in the Delta which may overwhelm or compromise the effectiveness of water project restrictions. To clarify the relative importance of export effects, and to help identify other management actions that can contribute to species recovery, the proposal calls for the Secretary of Commerce to analyze and quantify survival benefits from a suite of action alternatives. These actions include existing export restrictions, a trap-and-barge program, barriers to fish entrainment, habitat enhancements, and predation control programs. By conducting a rigorous analysis of these and other actions, the National Marine Fisheries Service will demonstrate the effectiveness of existing reasonable and prudent alternative actions and potentially identify new actions that can achieve greater or equal benefits with reduced water costs.

#### Funds Available to Address Proposal's Costs

There is additional funding for salmon and Delta smelt management in the Senate Energy and Water appropriations bill for fiscal year 2016 which is more than double the proposal's

estimated cost. Thus, resources should not be a problem for implementing the proposal with projected funding levels. Specifically:

- There is an extra \$20 million in the Bureau of Reclamation's environmental compliance and restoration account in the Energy and Water bill of which (while not explicitly specified) \$17 million is intended for California. Of the \$17 million, \$13.5 million is intended to be used for fish monitoring and studies in California (the other \$3.5 million is for temporary barriers and the operation of the Delta Cross Channel Gates). If the Senate and House reach an agreement on legislation, a part of this agreement would be to include sufficient funds from this amount to fund the agreement.
- The \$13.5 million for fish monitoring and studies in the Senate FY 2016 Energy and Water Appropriations bill is more than double the \$5.7 million estimate of what the proposal would cost (see spreadsheet sent as separate attachment to email). Note: This cost estimate is for the proposal's costs without the mark fishery program, which the House may not agree to include if an agreement can be reached. Even if the mark fishery program is included, however, the proposal could still be funded with the additional resources for the smelt and salmon fisheries in California in the FY 2016 Senate Energy and Water Appropriations bill.

## Salmon Legislation Cost Estimates

Section (a) (b)	Scientific Studies in 2015	Trap and Barge Enhanced 6-year Study
Section	Process for Ensuring Salmonid	Survival benefits
Section	Nonnative reduction pilot program	(b)(1)(A): Phase 1 (b)(1)(B): Phase 2 (b)(1)©: Phase 3
Section	New actions to benefit Central Valley salmonids	Spring Chinook weirs
Delta Smelt I	Legislation Cost Estimates	
Section R	evise Incidental Take Level Calculation to Reflect Nev	v Science
(b) Increased	actoring Increased Real-Time Monitoring I Monitoring to Inform Real-time Oper. ta Smelt Distribution Study	Sampling Scientific Investigation
Section	Mark Fishery	w/ mass marking
		w/ mass tagging

Field Tech FTE	Biologist FTE	\$56,000 Field Tech Cost	\$135,000 Biologist Cost	Annual Direct Costs
1 0.5		\$56,000 \$28,000	\$67,500 \$44,550	\$350,000 \$ 1,200,000
	0.5	\$0	\$200,000	
	0.75	\$0	\$101,250	
	Unknow	n until Phase 1 co	mpleted	
1		\$56,000	\$135,000	\$400,000
	TOTAL	\$140,000	\$818,300	\$7,750,000
				Annual
				Staff Time
				\$100,000
				\$1,000,000
				\$2,000,000
	TOAL			\$3,100,000
	Overall Total w/or	ut Marking progra	m	\$3,100,000
	Overall Total w/or	ut Marking progra ve costs with Mar		\$3,100,000
	Overall Total w/or	ve costs with Mar		\$3,100,000 \$1,600,000

\$473,500 \$1,272,550

\$200,000

\$101,250

\$591,000 **\$2,638,300** 

\$3,100,000

\$5,738,300

\$1,735,000 **\$7,473,300**  + \$4.8 million one-time cost to purchase four AutoFish Tagging Traile

\$4,335,000

+ \$4.8 million one-time cost to purchase four AutoFish Tagging Traile

:rs

From: Watts, John (Feinstein)

**Sent:** Wednesday, August 13, 2014 12:18 PM **To:** Tom Birmingham; Bernhardt, David L.

**CC:** Yeung, Felix (Feinstein)

**Subject:** Further revise to area of origin language **Attachments:** area of origin revise 8 12 2014.docx

Tom and David,

Felix and I have looked at your proposed rewrite of the area of origin language and have come up with a slightly revised effort that we believe is tighter and clearer. How does this look to you?

John

SEC. . Water Rights and Area-of-Origin Protections

- 1. The Secretary of the Interior (Secretary) is directed in the operation of the Central Valley Project (CVP) to adhere to California's water rights laws governing water rights priorities by honoring water rights senior to those held by the United States for operation of the CVP, regardless of the source of priority, including any appropriative water rights initiated prior to December 19, 1914, as well as water rights and other priorities perfected or to be perfected pursuant to California Water Code Part 2 of Division 2. Article 1.7 (commencing with section 1215 of Chapter 1 of Part 2 of Division 2, Sections 10505, 10505.5, 11128, 11460, 11461, 11462 and 11463, and Sections 12200 to 12220, inclusive).
- 2. Any action that requires that diversions be bypassed or that involves the release of water from any CVP water storage facility taken by the Secretary or the Secretary of the Department of Commerce pursuant to Section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531, et seq.) shall be applied in a manner that is consistent with water rights priorities established by California law.

## SEC. \_\_\_. NO REDIRECTED ADVERSE IMPACTS.

The Secretary shall einsure that, except as otherwise provided for in a water service or repayment contract, actions taken to implement in compliance with legal obligations imposed pursuant to this Act, including, but not limited to, such actions under the Endangered Species Act of 1973 (16 U.S.C. § 1531 et seq.) and other federal laws, shall not result in there are no redirected adverse water supply or fiscal impacts to those within

the Sacramento River Watershed or the State Water Project arising from the Secretary's operation of the Central Valley Project to meet compliance with legal obligations imposed pursuant to federal law by or through any Federal agency, including, but not limited to those legal obligations emanating from the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), or this if those obligations are imposed directly or indirectly by this Act.

SEC. . Sacramento River Settlement Contracts.

In order to ensure the stability of CVP operations on the Sacramento River for authorized purposes, including meeting Federal Endangered Species Act requirements, the Sacramento River Settlement Contracts, long- and short-form, entered into by the United States with various districts, companies and individuals, pursuant to Section 14 of the Reclamation Project Act of 1939 (53 Stat. 1197), shall remain in full force and effect pending the final resolution of *Natural Resources Defense Council, et al. v. Jewell, et al.*, (9th Cir. Case No. 09-17661 and USDC E.D. Cal. Case No. 05–cv–01207–LJO–GSA) through decision, dismissal, withdrawal or settlement or, in the event a Section 7(a)(2) consultation is required for renewal of the Sacramento River Settlement Contracts, until new contracts are executed and judicial review of the new contracts is exhausted or, if it occurs sooner, five years after the date of the enactment of this section.

From: Tom Birmingham

Sent: Wednesday, August 13, 2014 12:39 PM

**To:** Watts, John (Feinstein)

**CC:** Bernhardt, David L.; Yeung, Felix (Feinstein) **Subject:** Re: Further revise to area of origin language

Your version is better.

Sent from my iPhone

On Aug 13, 2014, at 3:18 PM, "Watts, John (Feinstein)" < <a href="mailto:John Watts@feinstein.senate.gov">John Watts@feinstein.senate.gov</a>> wrote:

Tom and David,

Felix and I have looked at your proposed rewrite of the area of origin language and have come up with a slightly revised effort that we believe is tighter and clearer. How does this look to you?

John

<area of origin revise 8 12 2014.docx>

From: Tom Birmingham

Sent: Wednesday, August 13, 2014 12:41 PM

**To:** Damon Nelson **CC:** David L. Bernhardt

Subject: Fwd: delta smelt take from 2005 to 2014 and averages

Attachments: AnnualDeltaSmeltTake20052014ForTom.xlsx; Untitled attachment 03655.htm

Here is some of the information you requested.

Sent from my iPhone

Begin forwarded message:

From: Sheila Greene < sgreene@westlandswater.org >

Date: August 13, 2014 at 3:05:34 PM EDT

To: Birmingham Tom < tbirmingham@westlandswater.org > Subject: delta smelt take from 2005 to 2014 and averages

The average annual adult delta smelt take from 2005 through 2014 is 335. The average annual juvenile delta smelt take from 2005 through 2014 is 1205. The average annual total delta smelt take from 2005 through 2014 is 1540. The data are attached.

The data were obtained from the 2008 BO, the Smelt Working Group Meeting Notes, and the DFW website.

Sheila Greene

Westlands Water District 400 Capitol Mall, 27<sup>th</sup> Floor Sacramento, CA 95814 916-321-4567 voice sgreene@westlandswater.org

ANNUAL DELTA SMELT TAKE AT CVP AND SWP

/ (( V ) ( )	DELITY SIVILEI	17 (IXL 7 (1	CVI /IIVD 3	,,,,
Year	Adult J	uvenile		
2004/05	2018	1728	3746	
2005/06	324	12	336	
2006/07	36	2672	2708	
2007/08	350	1688	2038	
2008/09	24	1897	1921	
2009/10	92	81	173	
2010/11	48	0	48	
2011/12	199	2151	2350	
2012/13	260	1741	2001	
2013/14	0	78	78	
Average	335.1	1204.8	1539.9	

Numbers taken from either 1) Smelt working Group Meeting Notes, 2) 2008 BO, or Fish and Wildlife's w



From: Tom Birmingham

Sent: Wednesday, August 13, 2014 12:54 PM

**To:** 'Nelson, Damon' **CC:** 'Bernhardt, David L.'

**Subject:** IEP incidental take of delta smelt **Attachments:** FWS\_BO\_F123R.pdf

Damon,

The incidental take level for scientific study is on pages 30 and 31, which I highlighted.

Tom



# United States Department of the Interior

FISH AND WILDLIFE SERVICE Sacramento Fish and Wildlife Office 3310 El Camino Avenue, Suite 130 Sacramento, California 95821-6340

December 9, 1997

#### Memorandum

To:

Penny S. Howard, Regional Environmental Officer

Bureau of Reclamation, Sacramento, California

From:

Field Supervisor, Ecological Services, Sacramento Fish and Wildlife Office,

Sacramento, California

Subject:

Formal Endangered Species Consultation and Conference on Field Sampling

Activities of the Interagency Ecological Program for the Sacramento-San Joaquin

Estuary

#### Dear Ms. Howard:

This is in response to your March 13, 1996, request for formal consultation with the U.S. Fish and Wildlife Service (Service) on field sampling activities of the Interagency Ecological Program located in the Sacramento-San Joaquin Estuary, California. Your request was received in our office on March 15, 1996. This document represents the Service's biological and conference opinions on the effects of the action on the threatened delta smelt (*Hypomesus transpacificus*) (Figure 1) and its critical habitat and on the proposed as threatened Sacramento splittail (*Pogonichthys macrolepidotus*) (Figure 2), in accordance with section 7 of the Endangered Species Act of 1973, as amended.

These biological and conference opinions are based on information provided in: (1) the February 1996, Biological Assessment of the Effects of the Interagency Ecological Program for the Sacramento-San Joaquin Estuary (IEP) on Delta Smelt; (2) several meetings between the California Department of Fish and Game (CDFG), the Bureau of Reclamation (Reclamation) and the Service; and (3) other sources of information contained in the Service's files. A complete administrative record of this consultation and conference is on file in the Sacramento Fish and Wildlife Office. Please refer to the file number, 1-1-96-F-91, when requesting information concerning these opinions.

#### **Consultation History**

June 18, 1996 - Representatives from CDFG, Reclamation, and the Service met to discuss significant issues associated with the IEP sampling activities, to obtain background information on

the IEP, and to discuss the consultation process. During the preparation of a "pre-draft" biological opinion, it was noted that no minimization techniques were provided for Sacramento splittail in the Biological Assessment.

August 21, 1996 - A telephone conversation between Mr. Matthew Vandenberg of my staff and Mr. Patrick Coulston, IEP Program Manager. Mr. Coulston agreed to a minimization program for Sacramento splittail. The minimization program will utilize the same procedures as proposed for delta smelt.

August 22, 1996 - The Service issued a "pre-draft" biological opinion to the IEP staff for their internal review.

October 21, 1996 - A meeting was scheduled between the IEP Coordinator, IEP Management Team members and the Service to iron out differences between the parties in regard to the proposed requirements of the biological opinion. Because some of the IEP Management Team members were unable to attend the October 21, 1996, meeting, suggested rewordings to the biological opinion were E-mailed to the Service on October 29, 1996, for possible inclusion into the biological opinion. Some of this rewording was incorporated into the biological opinion and a second draft was submitted to the IEP Management Team for review. Because the sampling activities of the IEP were in flux at the time the draft biological opinion was submitted, IEP Management Team members requested extension of the formal consultation process until more specific sampling activities could be generated and a better idea of sampling impacts on Sacramento splittail assessed.

April 2, 1997 - The IEP Management Team provided the Service with its updated sampling activity program, but did not provide the impact assessment for Sacramento splittail.

July 14, 1997 - The IEP Management Team and the Service agreed that consultation would continue but that incidental take on Sacramento splittail would not be authorized. The following description of the proposed activity incorporates these modifications.

#### BIOLOGICAL AND CONFERENCE OPINIONS

### **Description of the Proposed Action**

The IEP is an estuarine ecological monitoring and special study collaboration by three state and six federal agencies with management and/or regulatory responsibilities in the Bay-Delta system. The IEP was first established by a memorandum of understanding in 1971. The current members are the Department of Water Resources (DWR), CDFG, the State Water Resources Control Board (SWRCB), Reclamation, the Service, the U.S. Geological Survey (USGS), the U.S. Environmental Protection Agency (EPA), the U.S. Army Corps of Engineers (Corps), and the National Marine Fisheries Service (NMFS). The purpose of this collaboration is to gather in an

efficient, coordinated, and cooperative way the ecological information required by the agencies to effectively carry out their management and regulation responsibilities.

At any given time, a wide variety of ecological investigations are being conducted under the auspices of the IEP. The content of the program is dynamic, in response to changes in the estuary and the ever changing information needs of the member agencies. Below are descriptions of the program monitoring and special study elements. They include field sampling that could capture ("take") delta smelt and Sacramento splittail. The take of delta smelt will be minimized to the maximum extent practicable as described in the proposed project description for the various surveys and studies. The program includes many additional elements that are not described here because they are analytical in nature, or use field methods that are highly unlikely to capture delta smelt and Sacramento splittail. Again, the program is a dynamic one. The assessment of impacts on delta smelt and Sacramento splittail provided later in this document is based on the current program. It is anticipated that as elements are changed, added and deleted in the future that the impacts of these program modifications will be addressed through updated impact assessments and amendments to the biological opinion issued by the Service. Some of the studies conducted under the IEP program such as the Special Study at Knight's Landing, the Special Study of Coleman Hatchery Smolt Survival, and the Tidal Marsh Study are either out of the range of delta smelt and Sacramento splittail or do not affect the species and, therefore, will not be discussed below. An additional study, the South Delta Special Study Proposal, will be a mark/recapture study in the South Delta. The proposal is designed to evaluate the benefits of the barrier at the Head of Old River under varying export and flow conditions approved by the Delta Accord. Since the marked salmon would be caught in the Chipps Island midwater trawling, the Kodiak trawling, or the Real-Time Monitoring sampling (these studies are discussed below) this proposal will not result in any additional sampling or take of delta smelt and Sacramento splittail.

#### Studies

Neomysis/Zooplankton Study (IEP Element I.C.2) attempts to determine how these important fish food organisms are affected by phytoplankton concentrations, estuarine circulation, export pumping and other aspects of the environment. The Study began in 1986.

The study uses a Neomysis net to capture mysid shrimp and a Clarke-Bumpus net to catch zooplankton. The nets are mounted on the same towing frame. The Neomysis net is 30 centimeters (cm) in mouth diameter, 1.48 meters (m) long and has a 0.505 millimeter (mm) mesh opening. It samples approximately 60 cubic meters of water per tow. The Clarke-Bumpus net is 10 cm in mouth diameter, 73 cm long, has 0.154 mm mesh, and filters approximately 9 cubic meters per tow. In addition, a small pump with 15 liters/minute capacity is used for micro zooplankton. It usually pumps 15 liters per sample. In 1996, a vertical-haul, 0.5 m, 0.154 mm mesh, net was added to the gear. Clarke-Bumpus and Neomysis net tows are made obliquely from bottom to surface for a period of 10 minutes at a total of 14 fixed stations and 2 floating stations (at entrapment zone salinities), once monthly from January to December. Pump samples are taken at each station by lowering the pump intake to the bottom and raising it slowly to the

surface. The fixed stations are located along the entire length of Suisun Bay in the ship channel, in the main channel of the Sacramento River to Rio Vista, the main channel of the San Joaquin River to Stockton, and in Montezuma and Suisun Sloughs. One fixed station is in Grizzly Bay. The floating stations are in the channels at bottom salinities of 2 and 6 ms/cm. The vertical-haul net is used to sample monthly at Bay Study stations in San Francisco and San Pablo bays.

Marine and Estuarine Species Abundance and Distribution surveys (IEP Element I.D.1) The primary objective of this study is to develop criteria to prevent or minimize negative impacts of water project activities on Bay fishery resources. To achieve this objective it is necessary to: (1) determine which species are affected by changes in the amount and timing of freshwater outflows to the Bay, (2) identify the outflow related mechanisms underlying the abundance-outflow or distribution-outflow relationships developed and, (3) to quantify any impacts that water development project activities would have on the identified mechanisms. This study is one of the sampling programs the Service uses to assess delta smelt abundance.

Midwater and otter trawls are fished at 52 sites from South San Francisco Bay to the lower Sacramento and San Joaquin rivers monthly from February to October. At each station one tow is made with an otter trawl and a midwater trawl. The otter trawl has a 4.9 m head-rope, a 2.5 cm stretch mesh body and a 1.3 cm stretch mesh codend. The midwater trawl has a 3.7 m square mouth. The mesh graduates in nine sections from 20.3 cm stretch mesh at the mouth to 1.3 cm at the cod-end. The otter trawl is towed against the current for 5 minutes. The midwater trawl is towed with the current for 12 minutes and retrieved obliquely so that all depths are sampled equally. Following identification, captured smelt are returned to the water.

Fall Midwater Trawl Survey (IEP Element I.D.4) of San Pablo Bay, Suisun Bay, and the Delta to monitor distribution and abundance of young striped bass, delta smelt, American shad, longfin smelt, and Sacramento splittail. Abundance indices for these fish are developed using the data gathered. It is necessary to return the delta smelt samples to the laboratory for identification and counting.

A 3.65-meter square midwater trawl with a cod-end of 1.27 cm square mesh is towed diagonally for 12 minutes at approximately 90 stations, from San Pablo Bay to Rio Vista and Stockton. In the past, the midwater trawl survey was conducted from September to December. In recent years the survey has been extended through April to measure the distribution and abundance of delta smelt.

Delta Resident Shoreline Fish Monitoring Survey (IEP Element II.D.5) determines trends in abundance and size distribution of resident fishes in the Sacramento-San Joaquin Delta.

Resident fish are collected with a boat-mounted electrofisher at 20 representative sites throughout the delta (5 sites each in the east and central delta, 3 sites each in the north and west delta, and 4 sites in the south delta). At each site, 1000 meters of shoreline is sampled. Within this 1000 meters, each habitat type (i.e., bare riprap, overhanging riparian vegetation, emergent vegetation)

is sampled separately. Stunned fish are captured with a dip net and placed in an aerated live-box on board the boat. When a habitat type has been completely sampled, usually in less than an hour, all fish are identified, measured, counted, and released immediately near the capture site. The physical and chemical environment at each site is characterized. Sampling takes place in February, April, June and August of alternate years.

Sturgeon Year-Class Strength Monitoring Study (IEP Element I.D.8) is used to determine methods that can be used to collect a representative sample of juvenile sturgeon, to develop a reliable index of year class strength, and to identify environmental factors that influence sturgeon year class strength. Baited set-lines and otter trawls will be used to capture age 1-7 (30-91 cm) juvenile sturgeon in the Sacramento-San Joaquin Delta, Suisun Bay, and San Pablo Bay. Set-lines will be 550 meters long with about 100 hooks and will be fished for about 24 hours. Otter trawls fished for juvenile sturgeon in the past have been semi-balloon shrimp trawls with an 8-meter head rope, 5.07 cm mesh in the net and 1.26 cm mesh in the cod-end. IEP is designing a larger and more efficient trawl because of low sturgeon catches in the shrimp trawls. The new trawl will have a head rope about 15 meters long, a foot rope with rollers, and a tickler chain ahead of the trawls. Previous towing times were 5 minutes on the bottom; the new trawls are towed for at least 20 minutes on the bottom. As the distribution of juvenile sturgeon is still poorly known, IEP will sample at least 20 locations throughout the central Estuary to ensure capture of juvenile sturgeon and to delimit their distribution. Relative efficiency of the capture techniques will be evaluated by comparing catch-per-effort (number of sturgeon caught/sampling day).

All fish captured are counted and measured. A segment of a pectoral fin ray from most captured sturgeon is removed, sectioned, mounted, and aged. An index of year-class strength is calculated from the age composition data to explore associations between year class strength and variables potentially affecting young sturgeon abundance.

Delta Juvenile Chinook Salmon Monitoring Study (IEP Element I.D.9) monitors the timing and relative abundance of juvenile chinook salmon in the Delta and lower Sacramento-San Joaquin rivers. The work is conducted by the Service's Sacramento-San Joaquin Estuary Fishery Resource Office. This monitoring utilizes a wide variety of gear types ranging from small nets to larger ones.

- 1. Beach seining: A 15-m net is used at approximately 48 locations along the Sacramento and San Joaquin rivers and in Delta channels. Several Sacramento River sites above Rio Vista are sampled 5 days a week from October to March. San Joaquin River sites are seined 1 day a week from January to June. The other Sacramento and Delta sites are seined 2 to 4 days a month from September to August.
- 2. Midwater trawling at Chipps Island: Ten, 20-minute tows are made (3 to 4 on the north, middle and south sides) of the river channel at Chipps Island, 7 days a week

- in January, from April through June, and potentially in November and December. During October and February and March, trawling is done 4 days a week. The trawl net has a 4.57 by 9.14-m mouth and 0.63 cm cod end mesh.
- 3. Midwater trawling at Sacramento at River Mile 55: Ten, 20-minute tows are made in the center of the channel 7 days a week from April 5 to May 15 and 3 days a week in July, August, September and until October 23.

During the rest of May and in June trawling frequency is 5 days a week. The trawl net has a 1.83 by 4.57-m mouth and 0.32 cm cod end mesh. This net was recently replaced by a Kodiak trawl with a 1.83 by 7.62-m mouth. A larger net with a 2.44 by 9.14-m mouth will be tested later. Both nets have 0.32 cm cod end mesh.

- 4. Kodiak Trawling: Ten, 20-minute Kodiak trawl tows are made 5 days a week at Sacramento from January through June, 5 days a week in November and 7 days a week in December.
- Fyke netting: Two fyke nets are located at Sacramento River Mile 55, one on the east and one on the west side of the river. The mouth widths vary between 5 and 20 meters depending on the water level. Mesh size is 0.63 cm on the wings and 0.32 cm on the hoop. The fyke nets are fished year-round, 5 days a week as conditions permit but no fyke netting will be done between September 1996 and August 1997.
- 6. Rotary screw trap: Two traps are deployed at the Delta Cross Channel and are fished 5 days a week, October through December as long as the gates are open. The trap has a cone diameter of 2.43 m and mesh size of approximately 0.63 cm.

20 mm Juvenile Delta Smelt Survey (IEP Element I.D.11) monitors 20 mm juvenile delta smelt distribution and abundance throughout the Estuary to determine whether flows specified in the December 5, 1994, Water Accord Principals of Agreement and the draft Water Quality Control Plan are sufficient to maintain delta smelt rearing habitat away from the south and central Delta. This is a new study and was established because the Egg and Larval Study, the Summer Townet Survey and the Fall Midwater Trawl Survey are not efficient at capturing postlarval delta smelt (those approximately 20 mm long). At this length, delta smelt become salvageable at the Central Valley Project (CVP) and State Water Project (SWP) export facilities. At lengths greater than 20 mm, delta smelt salvaged at these facilities are considered "take." At lengths less than 20 mm, there is currently no take provision for delta smelt at these facilities. The information obtained in this study is used to adjust SWP/CVP operations.

A 1600 micron mesh plankton net 5.1 m in length, with a mouth area of 1.5 m<sup>2</sup> mounted on a ski frame is used to collect juvenile delta smelt. Zooplankton samples will be collected by a 197 micron Clarke-Bumpus net mounted on top of the townet frame. Diagonal tows of 10 minutes

duration will be made at 37 stations located from eastern San Pablo Bay throughout Suisun Bay and the Delta. The survey will run for 5 days every 14 days from late April to early July on neap tides. Samples are returned to the laboratory for identification and counting.

November Delta Smelt Kodiak Trawl Geographical Survey (IEP Element I.D.12) provides additional scientific data on the geographic distribution, relative population abundance (densities), and length-weight relationships for delta smelt. The study is basically an attempt to improve on the delta smelt distribution and abundance information derived from the midwater trawl survey. Potential objectives for the sampling are: (1) geographical distribution, (2) delta smelt abundance estimate, (3) net comparisons with the fall midwater trawl and, (4) sampling in areas of low delta smelt densities and in shallow water areas where the midwater trawl cannot sample. The Kodiak trawl has a mouth opening of 61.83 by 7.62 m. Three 10-minute trawls are scheduled to be conducted at 35 stations throughout the Estuary in November.

Summer Townet Study (IEP Element I.D.13) has been conducted annually since 1959, primarily to index the abundance of young striped bass when the mean size reaches 38 mm. The abundance indices are used to evaluate the effects of water management, including losses to water project diversions, on striped bass year class strength and population trends. Data from this study have also been used to evaluate delta smelt abundance trends.

The gear used is a conical, ski-mounted townet 5.5 m long, mouth area 1.5 m<sup>2</sup>. The first 3 m has 1.27 cm stretch mesh and the rest is bobbinet with 3.1 holes/cm. The nets are fished in three, 10-minute bottom to surface tows at 31 sites from San Pablo Bay through the Delta. Surveys last 5 days and are repeated at two week intervals during July and August until the mean length of striped bass caught exceeds 38 mm. The townet survey is also used to estimate abundance and distribution of delta smelt. It is necessary to preserve the captured smelt and return them to the laboratory for identification and counting.

Suisun Marsh Study (U.C. Davis) (IEP Element I.D.14) The objectives of this study are: (1) to record the long-term changes in fish populations in and around Suisun Marsh due to environmental fluctuations and species introductions, and add to the growing database on the Sacramento-San Joaquin Estuary, (2) to monitor the distribution and abundance of seasonal fish species in the Suisun Marsh, especially delta smelt, longfin smelt, chinook salmon, and Sacramento splittail, (3) to track the movement of exotic species, especially the shimofuri goby and the Asian clam and, (4) to study the effects of the Montezuma salinity control gates and other proposed changes in water circulation on fish populations.

The sampling gear is an otter trawl with a 1 m by 2.5 m opening, a length of 5.3 m and mesh sizes tapering down to 6 mm stretch mesh in the bag. Tows last 5 or 10 minutes depending on the length of the slough being sampled. At the end of a tow, the bag end is emptied into a washpan full of water, the fish are measured (standard length) and released. Supplementary sampling is done with a 10 m long beach seine with 0.63 cm mesh at one site in Denverton Slough and one

site in Suisun Slough. Fish are handled as in the trawl. Sampling frequency is once monthly at 21 locations throughout Suisun Marsh. Two days are required to complete the monthly sampling. All fish are returned to the water immediately after identification and measurement.

Real-Time Monitoring Program (IEP Element II.A.2) This program was conducted as a pilot study in 1995 and continued throughout 1996 and 1997. The purpose of this pilot study was to assess the feasibility of protecting chinook salmon, delta smelt, splittail, longfin smelt, and other fish species from CVP and SWP operations in the south Delta. Data obtained in the field was provided as information to the CALFED Operations group within a 48 hour period. The 1995 through 1997 program specifically targeted chinook salmon and delta smelt. Data collected during these years were used to evaluate the predictive relationship between results of fisheries monitoring for selected target species at designated locations and the corresponding pattern and magnitude of fisheries losses in CVP and SWP salvage operations. Through this monitoring effort, it may be possible to reduce overall losses of entrained fish at no net additional water supply cost to the CVP and SWP. For example, if the susceptibility of a target fish species to loss is greater at one facility, then export pumping could be shifted to the facility where there is less susceptibility to loss. Fish losses would be reduced over combined use of both facilities at no net water cost. Under another set of circumstances, export pumping at the CVP and SWP facilities could be reduced if the monitoring stations detect high densities of targeted species in the channels headed toward these facilities. Reduced pumping levels would result in less take.

In 1995 through 1997, monitoring was implemented in two phases. The first phase, conducted from May 1 through May 21; was targeted at juvenile salmon and 20+ mm delta smelt. The second phase from May 22 through June 30 was targeted at juvenile delta smelt.

During the first phase, an intensive midwater and Kodiak trawling effort was conducted at 10 sites in the Delta to recover unmarked hatchery salmon smolts released upstream by the Coleman National Fish Hatchery to the Sacramento River and by the Merced Fish Hatchery to the San Joaquin River. Sampling at the various sites provided information on the movement of these fish through the Delta, determined if the south Delta sites can be used for "early warning" purposes, and tested the real-time monitoring concept. Sampling was done 7 days a week at all but one of these sites during the May 1-May 21 period. During the second phase, May 22 - June 30, sampling was conducted from 3 to 7 days a week at six sites in the Delta. During the first and second phases, delta smelt were a targeted species. Monitoring was conducted primarily by Kodiak trawls, but at some sites, midwater trawls were used. Starting in late April, an estuary wide geographical survey targeting juvenile delta smelt was conducted by DFG. This survey will run over four days twice a month through the first week of July. Information from this survey was used with the information developed from the real-time monitoring to provide an estimate of the delta smelt population at risk from entrainment from CVP and SWP export pumping.

Shallow Water Sampling for Delta Smelt (IEP Element II.C.1) Sampling of fish communities and associated conditions in shallow-water habitats in the range of young delta smelt will be done in order to establish the use and role of this habitat to delta smelt and associated fish species.

The Study is testing the use of four egg and larval nets mounted on a push net frame which is "pushed" in front of a boat. The cone-shaped nets measure 76 cm in mouth diameter and are 3 meters long, with 0.505 mm mesh Nitex netting. A 1 liter plastic collecting jar, screened with 0.47 mm mesh bolting cloth, is attached at the cod end to collect samples. The nets are arranged so that two surface tows and two tows at approximately 2.44 m below the surface are taken concurrently. Two tows are made for 10 minutes in shallow water areas and in mid-channel areas at 8 fixed stations from the Napa River to Cache slough. Sampling is conducted from mid-March to mid-June.

Delta Smelt Life History Investigations (IEP Element II.C.3) In 1992 a series of delta smelt life history investigations were undertaken, including sampling in potential spawning and rearing habitats, growth and cohort analysis based on otolith reading, dietary requirements, species sampling gear testing, and entrainment monitoring. The majority of these projects have been mandated by the USFWS or the Fish and Game Commission in order to better our understanding of delta smelt life history and are expected to continue. Delta smelt used in these investigations are collected under the following IEP elements: I.D.4, I.D.11, I.D.12, I.D.13.

Sacramento Splittail Study (IEP Element II.C.4) This study is implemented to obtain information on the life history, distribution, and abundance of Sacramento splittail. Further, this study will assist in designing appropriate protective and recovery methods designed to enhance this native minnow's survival.

Sampling will most likely be conducted with variable mesh (1.27 - 7.61 cm stretch mesh) gillnets, boat electrofishing, and hook and line fishing. The sampling will be done on the margins of the water bodies in flooded or riparian vegetation where splittail are thought to spawn. Sampling will be conducted from March through May or from February to June if tagged fish movements suggest an extended spawning period. From June through October of above normal and wet years, juvenile splittail habitats in the Sacramento and San Joaquin River will be sampled with seines, trawls, traps, hook and line fishing and electrofishing to assess gear suitability for population estimation.

Delta Smelt Culturing Investigations (IEP Element II.C.6) University research into methods for spawning and rearing delta smelt in captivity to provide specimens for screen criteria and other research. This program also provides for a population of delta smelt away from any possible environmental catastrophes which may occur in the estuary. Delta smelt used for this program are collected by DFG using a 33-m miniature purse seine. Very elaborate transportation protocols are used to transport delta smelt from the wild in order to keep mortalities to a minimum. A total of 1,000 delta smelt will be collected for these investigations.

Net Fluxes in the Western Delta / Entrapment Zone Study (IEP Element II.D. 1) This project will attempt to determine the magnitude of the eastward transport of important species (zooplankton and larval fish) in the lower San Joaquin River when QWEST is calculated to be negative and will attempt to determine how important this movement is to the various populations involved.

Flux study will only be done in dry water year types, otherwise some entrapment zone work may be substituted.

The main objective of this entrapment zone study is to determine the relationship between vertical, lateral, and longitudinal positions of common species associated with the entrapment zone, including delta smelt. Further, this Study also measures the estuarine velocity field under various conditions of outflow and tidal circulation. Sampling will be done with two pumps (capacities 227.27 and 681.81 liters per minute) at 5 depths from 1 m below surface to 1 m above bottom on each ebb, flood and slack tide over a 30 hour period at two sites in the entrapment zone.

Larval delta smelt cannot be removed from the sample prior to preservation, and, of course, one of the study's objectives is to determine the abundance of smelt, meaning the fish must be preserved for counting and identification.

Yolo Bypass Investigations (IEP Element II.D.5) In wet years, pilot sampling of juvenile salmon entering, leaving, and trapped in the bypass will be conducted. Sampling of native fish use of bypass habitats may also be conducted. The objectives of the study include: (1) identification of the timing of salmon immigration into the Yolo Bypass, (2) identification of Bypass habitats used for salmon rearing; examination factors which promote successful salmon emigration from the Bypass, (3) estimation of the number of salmon trapped after floodwaters recede, (4) and measurement of salmon growth and feeding in the Bypass versus the Sacramento River. The primary gear types are fyke nets, screw traps, beach and purse seines. Less than 100 delta smelt are expected to be captured.

Georgiana Slough Acoustic Barrier Study, Phase IV (IEP Element II.F. 1) The purpose of this study is to continue evaluations and potential impacts of an acoustic barrier in guiding downstream salmon smolts away from the natural flow split at Georgiana Slough. In addition, the sampling work may be part of the Real-Time Monitoring Program. The impacts of the barrier installation and operation have been addressed in separate biological opinions for the project from the Service and NMFS. However, the incidental take associated with sampling will now be covered under this opinion and the Georgiana Slough Acoustic Barrier Program biological opinion will herewith be incorporated by reference. Sampling will occur only in dry water year types.

A Kodiak trawl, described below, will sample alternately between two sites between April and June. Trawling will typically occur seven days a week, 8 hours a day. Two four day periods will also include 24 hour continuous sampling. Other in-river studies are being conducted for the project but should have no potential for capture of delta smelt although they will take salmon. These studies include hydro-acoustic fixed location monitoring, acoustic mapping of the area and detailed hydraulic measurements.

During each weekly test sequence, Kodiak trawl collections will be used to gather data on juvenile chinook salmon distribution for the evaluation of barrier guidance efficiency. Trawling will occur seven days per week with the barrier operation cycling on or off for two day test periods, during daylight hours only. It is estimated that up to 120 trawls will be made during each week.

A Kodiak trawl will be used to collect juvenile chinook salmon in Georgiana Slough and the Sacramento River. The Kodiak trawl net is made of variable stretch mesh ranging from 5.08 cm at the net mouth to 0.63 cm mesh at the cod end with an overall length of 19.81 m and a nominal mouth opening of 1.83 m by 7.62 m. An aluminum framed live-box at the cod end reduces stress and injury to fish during collection and processing. The net will be towed between two skiffs operating at an engine speed of approximately 2000 RPM. Trawls will sample in an upstream direction for a duration of approximately 10 minutes. All samples will be collected within a consistent reach of Georgiana Slough and the Sacramento River. A General Oceanics flow meter will be used to estimate the volume of water sampled during each collection for use in calculating CPUE. Triplicate trawl samples will be collected within both Georgiana Slough and the Sacramento River throughout each testing series. All trawls in Georgiana Slough will be performed in mid-channel. Trawls in the Sacramento River will be done parallel to the left bank, at mid-channel, and parallel to the right bank to provide information on the horizontal distribution of juvenile chinook salmon in the river downstream from the acoustic barrier. Additional trawls will be periodically collected upstream of the acoustic barrier to document the horizontal distribution of juvenile salmon approaching the barrier.

All fish collected will be immediately transferred from the live-car to buckets filled with river water where the fish will be held during processing. Holding times will be approximately 15 minutes and will depend on the number of fish captured. Fish will be released outside of the sampling area after sample processing. Data recorded during each trawl will include enumeration of juvenile chinook salmon and other fish species, fork length, water volume sampled, and mortalities and damage to fish collected.

Fish Screen and Screen Criteria Development (IEP Element II.F.2) Fish screen criteria development relative to larger positive barrier intake facilities involves a combination of fish stamina testing and behavioral evaluations in simulated or actual facilities. A number of physical and operational components must be investigated in order to determine the feasibility of constructing a major diversion facility or in operating existing facilities more efficiently. One component, the fish treadmill, will determine how Delta fish species of various sizes and swimming abilities might behave if subjected to a physical screened barrier adjacent to the river. These tests are part of a larger program designed to resolve some of the technical, biological, and environmental issues related to diversions from the Sacramento River, although benefits to developing better screen criteria for more generic facilities should be achieved.

The treadmill is a 3.96 m diameter circular flume to be operated inside a 6.1 m diameter tank at the U. C. Davis Hydraulic Laboratory facility. Treadmill experiments will focus on species of special status or perceived as weak swimmers, including delta smelt, juvenile American shad,

juvenile chinook salmon (not winter or spring run), and splittail. Many of the fish to be tested will be collected from the Sacramento-San Joaquin estuary and tributaries when they are available, although some fish will be collected from hatcheries. The smallest fish expected to be collected and monitored will between 30-40mm total length.

Due to the number of environmental and hydraulic variables to be tested, many fish will be needed for evaluation and statistical analysis purposes. It is estimated that about 2000 delta smelt and 2000 splittail will be needed each year.

South Delta Temporary Barriers Fisheries Impact Evaluation (IEP Element II.F.4) The Purpose of this investigation is to evaluate the effectiveness and document the unintended negative effects of barriers installed in southern Delta channels to improve water quality and water levels, and to improve the survival of salmon smolts emigrating from the San Joaquin River.

DWR's and USBR's south delta temporary barriers project involves the experimental placement of seasonal rock water-elevation control structures in Middle River, Old River, and Grantline Canal near Tracy. Included in the COE permit and the delta smelt and winter-run biological opinions for the project are requirements for the evaluation of potential project fishery effects. The fishery effects evaluation includes monthly sampling at 10 barrier-influenced sites via gillnets and electrofishing. Sampling for adult salmon by drift gill-net during the month of September is also conducted to detect any delay or blockage of their upstream migration. Egg and larval sampling will begin in 1997 both upstream and downstream at each of the four barrier sites.

Delta Agricultural Diversion Evaluation (IEP Element II.G.1) estimates the magnitude of, and factors affecting, losses of fish to Delta agricultural diversions. The information obtained will be used to design and evaluate mitigation proposals to reduce entrainment, such as consolidating or screening agricultural diversions and modifying land and water use patterns on Delta islands. Portions of this study are required under the Corps' Permit for the South Delta Temporary Barriers Project Monitoring, Evaluation and Management Program, and the Delta Smelt Study Plan. Field work for this project has been recommended for suspension in 1996 to allow an intensified analysis and reporting of data from previous years. A similar program, perhaps enlarged, may be initiated in the near future, depending on the results of the analysis. Therefore, the delta smelt take associated with this project will be used for IEP Element II.G.4 in evaluating the diversion in Suisun Marsh.

Sampling emphasis is placed on two general life stages of fish: egg and larval, and juvenile and adult fish, and testing the effectiveness of a Lakos-Plum Creek self-cleaning fish screen.

#### Egg and Larval:

Entrainment of eggs and larvae is determined by staking a 505-micron mesh plankton net with 1-foot square mouth opening instream of the diversion outfall. Sampling is conducted in the Delta channel near the diversion using an egg and larval sled in conjunction with routine South

Delta Entrainment Monitoring surveys (Section III, S). Concurrent sampling is conducted in the adjacent Delta channel and the diversion at least once a month from May to June, and includes periods of day and night through the tidal cycle when possible. If sampling in the adjacent Delta channel is not possible, data from existing surveys within the same general area are used. Contents of the sample taken by the instream net or egg and larval sled are rinsed into the collecting jar, poured into sample jars, and immediately preserved in formalin.

#### Juvenile and Adult Fish:

Entrainment of juvenile fish is determined by placing a modified fyke net (0.32 cm mesh) with live-box directly over the diversion outfall to sample all water diverted. If the outfall cannot be sampled directly, a winged modified fyke net (0.32 cm mesh) with live-box is placed across the diversion channel as close to the outfall as possible to sample all water diverted. In general, nets are checked every 1 to 2 hours, unless set overnight. Concurrent sampling is conducted in the adjacent Delta channel by methods appropriate to the study site (townet, midwater/otter trawl, beach seine, electrofishing) and the diversion at least once a month from May to October, and includes periods of day and night and through the tidal cycle when possible. If sampling in the adjacent Delta channel is not possible, data from existing surveys within the same general area are used. Larval size fish, and those whose field identification is not possible, are preserved in formalin and sent to DWR's contract lab for processing and identification. All other fish are returned to the adjacent Delta channel away from the diversion site.

Contra Costa Canal Entrainment Study (IEP Element II.G.2) is designed to document losses of delta smelt and winter-run salmon to the intake for the Contra Costa Canal and to obtain information on the appropriate type and location of future fish screens.

The study uses a fyked sieve net attached to a rigid frame to sample in the cement-lined canal downstream of Pumping Plant #1. Wings are attached to the net to filter the entire flow of the canal. The net mouth is 2.13 by 2.74 m and is fixed to a tubular steel frame with a zippered collar. The first section is made of 1.27-cm nylon mesh and tapers to a 76.14 cm ring. The second section is made of 0.63-cm mesh netting, is 4.57 m long and starts with a single fyked section before tapering to a 30.45-cm diameter ring. The last section is a cylindrical cod-end (0.30 by 1.22m) made of 0.16-cm nylon mesh netting with a zipper at the back end to provide access to the captured fish. The wings are 2.74 by 7.62 m and are made of 1.27-cm mesh netting. The sieve net samples for 8 hours continuously on a sample day (debris permitting). The sampling schedule varies in intensity over the year. The most frequent sampling occurs between February 1 and May 31, when the sieve net samples every other day.

A plankton net is also used between January 1 and July 31 to assess the efficiency of the sieve net in capturing small delta smelt and splittail. The plankton net is 1.1 m in mouth diameter and has 500 micron Nitex netting. The plankton net fishes in front of the sieve net for periods of up to an hour.

Contra Costa Canal Mallard Slough Study (IEP Element II.G. 2) The objective of this study is to determine the abundance of delta smelt and winter-run salmon in the intake channel of the Mallard Slough pumping plant and whether delta smelt are entrained in the flow to the pump. This plant diverts a maximum of 39 cubic feet per second from Suisun Bay at Mallard Slough and delivers it to the Contra Costa Canal. It is necessary to preserve the samples and return them to the laboratory for identification and counting.

A tow net with 1 m² mouth mounted on a ski frame is towed above bottom from the bridge at the pumping plant to the slough mouth and in the river across the mouth of the slough. Tows are made twice a month when the pump is operating, which is usually when chlorides are less than 100 milligrams per liter (mg/l). In drought years, pumping may continue until chlorides exceed 250 mg/l.

North Bay Aqueduct Entrainment Monitoring (IEP Element II.G.3) estimates annual entrainment losses of delta smelt and other species of concern from the North Bay Aqueduct intake, in the Sacramento-San Joaquin Delta. Sampling is being conducted to modify North Bay Aqueduct pumping operations to minimize the effects of the project on delta smelt as per the terms of the CVP/SWP OCAP Biological Opinion (1-1-94-F-70). A second objective is to evaluate the use of the Barker/Lindsey Slough complex by larval bass, delta smelt, longfin smelt, and Sacramento splittail. A third objective is to establish baseline information on larval distributions of fishes near Prospect Island, a proposed mitigation area.

The study uses an egg and larval net mounted on a towing frame with skis. The cone-shaped net measure 76 cm in mouth diameter, is 3 meters long, and has .505 mm Nitex mesh netting. When attached to the towing frame the net opening is D-shaped. A 1 liter plastic collecting jar, screened with 0.47 mm mesh bolting cloth, collects the samples. Net tows are made obliquely from bottom to surface for 10 minutes at 4 fixed stations in Barker and Lindsey Sloughs (Stations 718, 720, 721a, and 721). As part of the Delta Smelt/Striped Bass Egg and Larval Survey, DFG samples the study sites every two days from early February to mid-July.

Suisun Marsh Diversion Evaluation and Monitoring (IEP Element II.G.4) monitors fish entrainment at selected Suisun Marsh diversions for the purposes of estimating special status species take and evaluating diversions for possible screening. Entrainment of juvenile fish is determined by placing a modified fyke net (0.32-cm mesh) with live-box directly over the diversion outfall to sample all water diverted. If the outfall cannot be sampled directly, a winged modified fyke net (0.32-cm mesh) with live-box is placed across the diversion channel as close to the outfall as possible to sample all water diverted. In general, nets are checked every 1 to 2 hours, unless set overnight. All fish are returned to the adjacent Delta channel away from the diversion site

## Introduction of New Studies into the IEP Program

When the IEP Management Team determines that a new study should be introduced into the IEP program, a complete description of the proposed study, along with delta smelt and Sacramento splittail avoidance and minimization measures, shall be submitted to the Service. The submittal shall include a request from Reclamation for reinitiation of formal consultation. The study shall not be implemented until consultation between the Service and Reclamation is completed, therefore, the IEP Management Team, in coordination with Reclamation, should submit the proposed new study plan to the Service in a timely manner.

#### Avoidance and Minimization Measures

For the Neomysis/Zooplankton Study (IEP Element I.C.2), the Shallow Water Sampling for Delta Smelt (IEP Element II.C.1), the Sacramento Splittail Study (IEP Element II.C.4), the South Delta Temporary Barriers Fisheries Impact Evaluation (IEP Element II.F.4), the Delta Agricultural Diversion Evaluation (IEP Element II.G.1), the North Bay Aqueduct Entrainment Monitoring (IEP Element II.G.3), and the Suisun Marsh Diversion Evaluation and Monitoring (IEP Element II.G.4) it is not possible to identify and remove larval smelt from the samples before preservatives are added. However, to minimize take of delta smelt, the samples will be examined before formalin is added, and if juvenile or adult smelt are seen, they will be removed and returned to the water.

In the Delta Resident Shoreline Fish Monitoring Survey (IEP Element II.D.5) and the Sturgeon Year-Class Strength Monitoring Study (IEP Element I.D.8) delta smelt are handled differently from other fishes to reduce mortality. Delta smelt are immediately measured and returned to the water, rather than being held in the live-tank. However, because of the fragile nature of the species, a substantial unavoidable mortality from capture and handling is expected.

In the Delta Juvenile Chinook Salmon Monitoring Study (IEP Element I.D.9) delta smelt are measured immediately after the winter-run chinook salmon are released unless their positive identification is in question. In such cases, a subsample of the catch may be saved for laboratory identification. Mortality is low in the beach seine but higher in the trawls. Sampling at Chipps Island will be reduced or suspended if delta smelt distribution is centered near Chipps Island. Take can be reduced by limiting the number of tows per day. Other steps which may reduce take of delta smelt at Chipps island may include reductions in the length of tows. Since Chipps Island is a fixed site and sampling effort is based on the specific net type, changes in these tow variables to reduce delta smelt losses would confound the information gathered from this survey.

To minimize take in the November Delta Smelt Kodiak Trawl Geographical Survey (IEP Element I.D.12), sampling is curtailed at any sampling location where the number of delta smelt taken exceeds 50 per day. This restriction caused the termination of the 1994 sampling after just one tow was made.

To prevent excessive take of delta smelt during the Real-Time Monitoring Program (IEP Element II.A.2), a catch of greater than 45 delta smelt at any station will require the field crew to notify the Data Review Team. Sampling frequency may then be reduced at that station. In addition, if 3000 or more delta smelt are taken after 3 weeks of sampling the Data Summary Team will meet to decide on an appropriate course of action to reduce future take.

During the Yolo Bypass Investigations (IEP Element II.D.5), the primary technique to reduce take will be avoidance. Sampling will be done in floodplain areas away from the primary spawning and rearing areas of delta smelt. Inflow to the region comes from the area well upstream of smelt spawning areas. It is possible that some delta smelt stray into this region from the base of the Bypass on their upstream spawning migration, however the area is exceptionally large (40,000 acres) so there is a low probability that smelt would be caught.

During the Contra Costa Canal Entrainment Studies (IEP Element II.G.2), the delta smelt captured were dead when the cod end of the net was examined. If delta smelt are in good condition when taken in the future, they will be returned to the water outside the channel and away from the influence of the Contra Costa Canal pumps. Larval delta smelt will be taken only in the plankton net. It is not possible to return these to the river because they cannot be identified in the field.

### Status of the Species/Species Account

#### Delta smelt

The delta smelt was federally listed as a threatened species on March 5, 1993 (58 FR 12854). Please refer to the Service (1993b, 1994a) and Water Resources and Reclamation (1994) for additional information on the biology and ecology of this species. The delta smelt is a slender bodied fish with a steely blue sheen on the sides, and it appears almost translucent (Moyle 1976). The delta smelt, which has a lifespan of one year, has an average length of 60 to 70 mm (about 2 to 3 inches) and is endemic to Suisun Bay upstream of San Francisco Bay through the Delta in Contra Costa, Sacramento, San Joaquin, Solano and Yolo counties, California (Figure 3). Historically, the delta smelt is thought to have occurred from Suisun Bay upstream to at least the city of Sacramento on the Sacramento River, and Mossdale on the San Joaquin River (Moyle et al. 1992, Sweetnam and Stevens 1993). In 1996, delta smelt were also collected in the Napa River. The delta smelt is an euryhaline species (tolerant of a wide salinity range) that spawns in fresh water and has been collected from estuarine waters up to 14 parts per thousand (ppt) salinity (Moyle et al. 1992). For a large part of its annual life span, this species is associated with the freshwater edge of the mixing zone (saltwater-freshwater interface; also called X2), where the salinity is approximately 2 ppt (Ganssle 1966, Moyle et al. 1992, Sweetnam and Stevens 1993).

The delta smelt is adapted to living in the highly productive Estuary where salinity varies spatially and temporally according to tidal cycles and the amount of freshwater inflow. Despite this tremendously variable environment, the historical Estuary probably offered relatively constant

suitable habitat conditions for the delta smelt because it could move upstream or downstream with the mixing zone (Moyle, pers. comm., 1993). The final rule to list the delta smelt as threatened describes in detail the factors that have contributed to this species' decline (Service 1993b).

Shortly before spawning, adult delta smelt migrate upstream from the brackish-water habitat associated with the mixing zone to disperse widely into river channels and tidally-influenced backwater sloughs (Radtke 1966, Moyle 1976, Wang 1991). Migrating adults with nearly mature eggs were taken at the CVP's Tracy Pumping Plant from late December 1990 to April 1991 (Wang 1991). Spawning locations appear to vary widely from year to year (Water Resources and Reclamation 1993). Sampling of larval delta smelt in the Delta suggests spawning has occurred in the Sacramento River, Barker, Lindsey, Cache, Georgiana, Prospect, Beaver, Hog, and Sycamore sloughs, in the San Joaquin River off Bradford Island including Fisherman's Cut, False River along the shore zone between Frank's and Webb tracts, and possibly other areas (Dale Sweetnam, CDFG, pers. comm.; Wang 1991). Delta smelt also may spawn north of Suisun Bay in Montezuma and Suisun sloughs and their tributaries (Lesa Meng, Service, pers. comm.; Sweetnam, CDFG, pers. comm.).

Delta smelt spawn in shallow, fresh, or slightly brackish water upstream of the mixing zone (Wang 1991). Most spawning occurs in tidally-influenced backwater sloughs and channel edgewaters (Moyle 1976; Wang 1986, 1991; Moyle et al. 1992). Although delta smelt spawning behavior has not been observed in the wild (Moyle et al. 1992), the adhesive, demersal eggs are thought to attach to substrates such as cattails, tules, tree roots, and submerged branches (Moyle 1976, Wang 1991).

The spawning season varies from year to year, and may occur from late winter (December) to early summer (July). Moyle (1976) collected gravid adults from December to April, although ripe delta smelt were most common in February and March. In 1989 and 1990, Wang (1991) estimated that spawning had taken place from mid-February to late June or early July, with peak spawning occurring in late April and early May. A recent study of delta smelt eggs and larvae (Wang and Brown 1994 as cited in Water Resources and Reclamation 1994) confirmed that spawning may occur from February through June, with a peak in April and May. Spawning has been reported to occur at water temperatures of about 7° to 15° C. Results from a University of California at Davis (UCD) study (Cech and Swanson 1995) indicate that although delta smelt tolerate a wide range of temperatures (<8° C to >25° C), warmer water temperatures restrict their distribution more than colder water temperatures.

Laboratory observations indicate that delta smelt are broadcast spawners that spawn in a current, usually at night, distributing their eggs over a local area (Lindberg 1992 and Mager 1993 as cited in Water Resources and Reclamation 1994). The eggs form an adhesive foot that appears to stick to most surfaces. Eggs attach singly to the substrate, and few eggs were found on vertical plants or the sides of a culture tank (Lindberg 1993 as cited in Water Resources and Reclamation 1994).

Delta smelt eggs hatched in 9 to 14 days at water temperatures ranging from 13° to 16° C during laboratory observations in 1992 (Mager 1992 as cited in Sweetnam and Stevens 1993). In this study, larvae began feeding on phytoplankton on day four, rotifers on day six, and *Artemia nauplii* at day 14. In laboratory studies, yolk-sac fry were found to be positively phototaxic, swimming to the lightest corner of the incubator, and negatively buoyant, actively swimming to the surface. The post-yolk-sac fry were more evenly distributed throughout the water column (Lindberg 1992 as cited in Water Resources and Reclamation 1994). After hatching, larvae and juveniles move downstream toward the mixing zone where they are retained by the vertical circulation of fresh and salt waters (Stevens *et al.* 1990). The pelagic larvae and juveniles feed on zooplankton, which typically shows highest densities in the mixing zone. When the mixing zone is located in Suisun Bay where there is extensive shallow water habitat within the euphotic zone (depths less than four meters), high densities of phytoplankton and zooplankton may accumulate (Arthur and Ball 1978, 1979, 1980). The introduction of the Asian clam, a highly efficient filter feeder, presently reduces the concentration of phytoplankton in this area. In general, estuaries are among the most productive ecosystems in the world (Goldman and Horne 1993).

Delta Smelt Swimming Behavior. Observations of delta smelt swimming in a swimming flume and in a large tank show that these fish are unsteady, intermittent, slow-speed swimmers (Swanson and Cech 1995). At low velocities in the swimming flume (<3 body lengths per second), and during spontaneous, unrestricted swimming in a 1 m tank, delta smelt consistently swam with a "stroke and glide" behavior. This type of swimming is very efficient; Weihs (1974) predicted energy savings of about 50 percent for "stroke and glide" swimming compared to steady swimming. However, the maximum speed delta smelt are able to achieve using this preferred mode of swimming, or gait, was less than 3 body lengths per second, and the fish did not readily or spontaneously swim at this or higher speeds (Swanson and Cech 1995). Although juvenile delta smelt appear to be stronger swimmers than adults, forced swimming at 3 body lengths per second in a swimming flume was apparently stressful; the fish were prone to swimming failure and extremely vulnerable to impingement (Swanson and Cech 1995). Unlike fish for which this type of measurement has been made in the past, delta smelt swimming performance was limited by behavioral rather than physiological or metabolic constraints (e.g., metabolic scope for activity; Brett 1976).

#### Delta Smelt Critical Habitat

On December 19, 1994, a final rule designating critical habitat for the delta smelt was published in the *Federal Register* (59 **FR** 65256; Service 1994a). Please refer to the Service (1994a) for additional information on delta smelt critical habitat.

In determining which areas to designate as critical habitat, the Service considers those physical and biological features that are essential to a species' conservation and that may require special management considerations or protection (50 CFR §424.12(b)).

The Service is required to list the known primary constituent elements together with the critical habitat description. Such physical and biological features include, but are not limited to, the following: (1) space for individual and population growth, and for normal behavior; (2) food, water, air, light, minerals, or other nutritional or physiological requirements; (3) cover or shelter; (4) sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and (5) generally, habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

In designating critical habitat, the Service identified the following primary constituent elements essential to the conservation of the delta smelt: physical habitat, water, river flow, and salinity concentrations required to maintain delta smelt habitat for spawning, larval and juvenile transport, rearing, and adult migration. Critical habitat for delta smelt is contained within Contra Costa, Sacramento, San Joaquin, Solano, and Yolo counties (Figure 4).

Spawning Habitat. Specific areas that have been identified as important delta smelt spawning habitat include Barker, Lindsey, Cache, Prospect, Georgiana, Beaver, Hog, and Sycamore sloughs and the Sacramento River in the Delta, and the tributaries of northern Suisun Bay.

Larval and Juvenile Transport. Adequate river flow is necessary to transport larvae from upstream spawning areas to rearing habitat in Suisun Bay, and to ensure that rearing habitat is maintained in Suisun Bay. To ensure this, X2 must be located westward of the confluence of the Sacramento-San Joaquin rivers, located near Collinsville (Confluence), during the period when larvae or juveniles are being transported, according to historical salinity conditions. X2 is important because the "entrapment zone" or zone where particles, nutrients, and plankton are "trapped," leading to an area of high productivity, is associated with its location (Figure 5). Placement of X2 in Suisun Bay substantially increases the amount of optimal salinity habitat available to delta smelt (Unger 1994). This is supported by a statistically significant relationship between the number of days that X2 is in Suisun Bay (during February and June) and delta smelt fall midwater trawl abundance (Herbold 1994). Habitat conditions suitable for transport of larvae and juveniles may be needed by the species as early as February 1 and as late as August 31, because the spawning season varies from year to year and may start as early as December and extend until July.

Rearing Habitat. An area extending eastward from Carquinez Straits, including Suisun, Grizzly, and Honker bays, Montezuma Slough and its tributary sloughs, up the Sacramento River to its confluence with Three Mile Slough, and south along the San Joaquin River including Big Break, defines the specific geographic area critical to the maintenance of suitable rearing habitat. Three Mile Slough represents the approximate location of the most upstream extent of historical tidal incursion. Rearing habitat is vulnerable to impacts from the beginning of February to the end of August.

Adult Migration. Adequate flows and suitable water quality are needed to attract migrating adults in the Sacramento and San Joaquin river channels and their associated tributaries, including

Cache and Montezuma sloughs and their tributaries. These areas are vulnerable to physical disturbance and flow disruption during migratory periods.

The Service's 1994 and 1995 biological opinions on the CVP and SWP provided for larval and juvenile transport flows, rearing habitat, and protection from entrainment for upstream migrating adults (Service 1994b, 1995).

# Sacramento Splittail

On January 6, 1994, a proposed rule to list the Sacramento splittail (*Pogonichthys macrolepidotus*) as a threatened species was published in the *Federal Register* (59 **FR** 862; Service 1994c). Please refer to the Service (1994c, 1994d, 1995), and Water Resources and Reclamation (1994) for additional information on the biology and ecology of the Sacramento splittail.

The Sacramento splittail is a large cyprinid that can reach greater than 12 inches in length (Moyle 1976). Adults are characterized by an elongated body, distinct nuchal hump, and a small blunt head with barbels usually present at the corners of the slightly subterminal mouth. This species can be distinguished from other minnows in the Central Valley of California by the enlarged dorsal lobe of the caudal fin. Sacramento splittail are a dull, silvery-gold on the sides and olive-grey dorsally. During the spawning season, the pectoral, pelvic and caudal fins are tinged with an orange-red color. Males develop small white nuptial tubercles on the head.

Sacramento splittail are endemic to California's Central Valley where they were once widely distributed in lakes and rivers (Moyle 1976). Historically, Sacramento splittail were found as far north as Redding on the Sacramento River, near the current Oroville Dam site on the Feather River, and the Folsom Dam site on the American River (Rutter 1908). The historical southern range is near the site of the Friant Dam on the San Joaquin River (Rutter 1908). The downstream range of the species presently includes two tributaries to San Pablo Bay, Napa and Petaluma River (Sommer et al. In prep.); however splittail are no longer collected in Coyote Creek, a tributary to the South Bay (Aceituno et al. 1976). Based on recent collections of splittail in the Sacramento and San Joaquin Rivers, the species still occupies riverine habitat available to them below dams (Sommer et al. In prep.). Anglers in Sacramento reported catches of 50 or more Sacramento splittail per day prior to damming of these rivers (Caywood 1974). Sacramento splittail were common in San Pablo Bay and Carquinez Strait following high winter flows up until about 1985 (Messersmith 1966, Moyle 1976, and Wang 1986 as cited in Water Resources and Reclamation 1994).

In recent times, dams and diversions have increasingly prevented upstream access to large rivers and the species is restricted to a small portion of its former range (Moyle and Yoshiyama 1989). Sacramento splittail enter the lower reaches of the Feather (Jones and Stokes 1993) and American rivers (Charles Hanson, State Water Contractors, *in litt.*, 1993) on occasion, but the species is now largely confined to the Delta, Suisun Bay, and Suisun Marsh (Service 1994c). Stream

Sacramento splittail are long-lived, frequently reaching five to seven years of age. Generally, females are highly fecund, producing over 100,000 eggs each year (Daniels and Moyle 1983). Populations fluctuate annually depending on spawning success. Spawning success is highly correlated with freshwater outflow and the availability of shallow-water habitat with submersed, aquatic vegetation (Daniels and Moyle 1983). Sacramento splittail usually reach sexual maturity by the end of their second year at which time they have attained a body length of 180 to 200 mm. There is some variability in the reproductive period because older fish reproduce before younger individuals (Caywood 1974). The largest recorded individuals of the Sacramento splittail have measured between 380 and 400 mm (Caywood 1974, Daniels and Moyle 1983). Adults migrate into fresh water in late fall and early winter prior to spawning. The onset of spawning is associated with rising water temperature, lengthening photoperiod, seasonal runoff, and possibly endogenous factors from the months of March through May, although there are records of spawning from late January to early July (Wang 1986). Spawning occurs in water temperatures from 9° to 20° C over flooded vegetation in tidal freshwater and euryhaline habitats of estuarine marshes and sloughs, and slow-moving reaches of large rivers. The eggs are adhesive or become adhesive soon after contacting water (Caywood 1974, and Bailey, UCD, pers. comm., 1994, as cited in Water Resources and Reclamation 1994). Larvae remain in shallow, weedy areas close to spawning sites and move into deeper water as they mature (Wang 1986).

Sacramento splittail are benthic foragers that feed on opossum shrimp, although detrital material makes up a large percentage of their stomach contents (Daniels and Moyle 1983). Earthworms, clams, insect larvae, and other invertebrates are also found in the diet. Predators include striped bass and other piscivores. Sacramento splittail are sometimes used as bait for striped bass.

Sacramento splittail can tolerate salinities as high as 10 to 18 ppt (Moyle 1976, Moyle and Yoshiyama 1992). Sacramento splittail are found throughout the Delta (Turner 1966), Suisun Bay, and the Suisun and Napa marshes. They migrate upstream from brackish areas to spawn in freshwater. Because they require flooded vegetation for spawning and rearing, Sacramento splittail are frequently found in areas subject to flooding.

The 1985 to 1992 decline in Sacramento splittail abundance is concurrent with hydrologic changes to the Estuary (Figure 6). These changes include increases in water diversions during the spawning period from January through July. Diversions, dams and reduced outflow, coupled with severe drought years, introduced aquatic species, and loss of wetlands and shallow-water habitat (CDFG 1992) have reduced the species' capacity to reverse its decline.

#### Environmental Baseline

### Delta Smelt

Adult delta smelt spawn in central Delta sloughs from February through August in shallow water areas having submersed aquatic plants and other suitable substrates and refugia. These shallow water areas have been identified in the draft Delta Native Fishes Recovery Plan (Service 1994d) as essential to the long-term survival and recovery of delta smelt and other resident fish. A no net loss strategy for these areas is proposed in this Recovery Plan.

The delta smelt is adapted to living in the highly productive Estuary where salinity varies spatially and temporally according to tidal cycles and the amount of freshwater inflow. Despite this tremendously variable environment, the historical Estuary probably offered relatively consistent spring transport flows that moved delta smelt juveniles and larvae downstream to the mixing zone (Peter Moyle, UCD, pers. comm.). Since the 1850's, however, the amount and extent of suitable habitat for the delta smelt has declined dramatically. The advent in 1853 of hydraulic mining in the Sacramento and San Joaquin rivers led to increased siltation and alteration of the circulation patterns of the Estuary (Nichols *et al.* 1986, Monroe and Kelly 1992). The reclamation of Merritt Island for agricultural purposes, in the same year, marked the beginning of the present-day cumulative loss of 94 percent of the Estuary's tidal marshes (Nichols *et al.* 1986, Monroe and Kelly 1992).

In addition to the degradation and loss of estuarine habitat, the delta smelt has been increasingly subject to entrainment, upstream or reverse flows of waters in the Delta and San Joaquin River, and constriction of low salinity habitat to deep-water river channels of the interior Delta (Moyle et al. 1992). These adverse conditions are primarily a result of drought and the steadily increasing proportion of river flow being diverted from the Delta by the CVP and SWP (Monroe and Kelly 1992). Figure 7 shows the relationship between the portion of the delta smelt population west of the Delta as sampled in the summer townet survey and the natural logarithm of Delta outflow from 1959 to 1988 (Water Resources and Reclamation 1994). This relationship indicates that the summer townet index increased dramatically when outflow was between 34,000 and 48,000 cfs, placing X2 between Chipps and Roe islands. Placement of X2 at Chipps and Roe islands would duplicate these favorable conditions.

### **Delta Smelt Critical Habitat**

Critical habitat has been affected by dredging, pile driving, and other actions that destroy spawning and refugial areas. Critical habitat has also been affected by diversions that have shifted the position of X2 upstream. This shift has caused a decreased abundance of delta smelt. Existing baseline conditions and implementation of the Service's 1993 and 1994 biological opinions provide a substantial part of the necessary positive riverine flows and estuarine outflows to transport delta smelt larvae downstream to suitable rearing habitat in Suisun Bay outside the influence of marinas and Federal and State pumping plants.

# Sacramento Splittail

Sacramento splittail have experienced a decline in population as a result of hydrologic changes in the Estuary and loss of shallow water habitat due to dredging and filling. Additional changes include increases in water diversions during the spawning period of January through July. Most of the factors that caused delta smelt to decline have also caused the decline of Sacramento splittail. These factors include (1) diversions, (2) dams and (3) reduced outflow, coupled with (4) severe drought years, (5) introduced aquatic species such as the Asiatic clam (Nichols *et al.* 1990), and (6) loss of wetlands and shallow-water habitat (DFG 1992) and appear to have perpetuated the species' decline. Note, however, that high outflow conditions in 1995 led to a substantial improvement in splittail recruitment (Sommer *et al.* In press).

### Effects of the Proposed Action

The IEP Program has the potential to take a large number of delta smelt and Sacramento splittail each year. Because delta smelt are delicate fish, most of those captured will probably result in mortality even though they are promptly returned to the water. However, the majority of these studies are needed, or required under different regulatory projects, to generate an assessment of delta smelt and Sacramento splittail abundance and distribution in order to modify in-Delta operations. The modifications made to in-Delta operations will likely decrease unnecessary direct and indirect take of the species as a result of other actions. Therefore, it is imperative that these studies be carried out. However, it is equally imperative that such studies be conducted in ways that minimize the mortalities of delta smelt and Sacramento splittail to the maximum extent possible. The proposed IEP Program will affect delta smelt and Sacramento splittail in the following ways:

### Neomysis/Zooplankton Study (IEP Element I.C.2)

This Study did not begin counting or identifying larval fish found in the samples until 1995. From January to November 1995, seven larval and one juvenile delta smelt were caught in the Neomysis net. None were caught in any other gear. The pump used to sample microzooplankton is either not strong enough to capture ichthyoplankton or the volume sampled is so small that capture is unlikely. The vertical-haul net used for these samples is capable of taking larval delta smelt. However, because this net will sample at the extreme downstream end of delta smelt habitat, very few delta smelt are expected to be captured when using this net. It is estimated that no more than 100 delta smelt will be taken yearly as a result of this study.

## Marine and Estuarine Species Abundance and Distribution surveys (IEP Element I.D.1)

From 1980 to 1993, an average of 107 juvenile and adult delta smelt were taken in the midwater trawl and otter trawl. Catches in the midwater have been consistently below 100 in the midwater trawl since 1987. It is estimated that no more than 100 delta smelt will be taken yearly as a result of this study.

# Fall Midwater Trawl Survey (IEP Element I.D.4)

Since the beginning of the Fall Midwater Trawl survey in 1967, an average of 425 delta smelt have been caught per year. Catches in excess of 1,000 fish per year have been recorded only three times. However, it is estimated that no more than 1,000 delta smelt will be taken yearly as a result of this study.

# Delta Resident Shoreline Fishes Monitoring Survey (IEP Element I.D.5)

Take of delta smelt during this study revealed 12 adult fish in April of 1995. Because this program utilizes a boat-mounted electrofisher, the likelihood of taking large numbers of delta smelt is minimized. Small sized fish, such as delta smelt, are less likely to be affected by electrofishing devices because of their limited mass. Further, the boat is less likely to enter shallow water habitat that is utilized by delta smelt because of the concern with bottoming out. Therefore, it is anticipated that no more than 100 delta smelt will be taken per year while using the boat mounted electrofisher.

### Sturgeon Year-Class Strength Monitoring Study (IEP Element I.D.8)

Only the otter trawl that is used in this study is capable of capturing delta smelt. Delta smelt are not particularly vulnerable to capture during this study because the otter trawl fishes primarily near the bottom of the water column. However, delta smelt have been caught during this study and IEP estimates that approximately 20 delta smelt would be taken per month. This study will likely be extend over a three to six month period during the summer and fall and, therefore, a maximum of 120 fish (20 fish per month multiplied by six months) are anticipated to be captured annually by the otter trawl during juvenile sturgeon sampling.

# Delta Juvenile Salmon Monitoring Study (IEP Element I.D.9)

The juvenile chinook salmon monitoring study has, in the past, taken large numbers of delta smelt. The study proponents have also recently modified the study so as to continue sampling throughout the year. With the increase in sampling effort, this program has the potential to increase take of delta smelt. The Service's Sacramento-San Joaquin Estuary Fishery Resource Office in Stockton, California had applied for a sub-permit to cover the take of delta smelt in past years. However, because this study is part of the IEP, the take of delta smelt under this monitoring program will now be covered under this consultation. It is estimated that no more than 13,878 delta smelt will be taken per year as a result of this study. Take of delta smelt under this study is higher than any other study because the sampling is conducted year round and within the prime rearing habitat of the species. The Service recommends that the IEP develop alternative sites to conduct the Juvenile Chinook Salmon Monitoring Study. Such alternative sites should be either up-stream or down-stream of Chipps Island.

# 20 mm Juvenile Delta Smelt Survey (IEP Element I.D.11)

Six surveys were conducted in 1995. The combined take of delta smelt from these studies equaled 337. Although the 1995 water year was classified as a wet year, take of delta smelt under this study is likely to exceed 337. It is estimated that a total of 3,350 delta smelt will be taken as a result of this study.

# Fall Delta Smelt Kodiak Trawl Geographical Survey (IEP Element I.D.12)

In 1994, 1,070 juvenile and adult delta smelt were captured at the only station sampled. In 1995, 2,084 smelt were taken at 33 stations. The estimated take of delta smelt is expected not to exceed 2,000 in any year.

# Summer Townet Study (IEP Element I.D.13)

In the 35 years of sampling (1959 to 1993), the summer townet survey has taken an average of 1,400 delta smelt per year. Since 1993, catches of delta smelt have been well above 1,000 fish per year. It is estimated that no more than 2,000 delta smelt will be taken yearly as a result of this study.

### Suisun Marsh Study (U.C. Davis) (IEP Element I.D.14)

Delta smelt catches were highest in 1980 and 1981 with 157 and 229 delta smelt taken respectively. From 1982 to 1994, catches ranged from zero to 28 per year. Based on the 1982 to 1994 studies, take of delta smelt is not likely to exceed 40 individuals.

### Real-Time Monitoring Program (IEP Element II.A.2)

In 1995, the real-time monitoring program took 845 delta smelt. The revised 1996 sampling program is larger in scope than that of 1995 and, therefore, should catch more fish. To prevent excessive take of delta smelt during this monitoring, sampling will cease at a particular station if the catch of delta smelt exceeds 45 in any given day. Overall, the take of delta smelt is not expected to exceed 5,000.

# Shallow Water Sampling for Delta Smelt (IEP Element II.C.1)

Sampling was initiated in 1997. It is not possible to identify and remove larval smelt from the samples before preservatives are added on the boat. Juvenile or adult fishes are returned to the water. It is estimated that no more than 2,000 delta smelt will be taken yearly as a result of this study.

# Delta Sinelt Life History Investigations (IEP Element II.C.3)

Delta smelt used in these investigations are collected under the following IEP elements: I.D. 4, I.D. 11, I.D. 12, and I.D. 13.

### Sacramento Splittail Study (IEP Element II.C.4)

Because much of the sampling activity will take place upstream from the range of delta smelt, catches of delta smelt are estimated to be minimal. Fewer than a dozen delta smelt are expected to be caught annually.

## Delta Smelt Culturing Investigations (IEP Element II.C.6)

Delta smelt used for this program are collected by CDFG using a 33m miniature purse seine. Very elaborate transportation protocols are used to transport delta smelt from the wild in order to keep mortalities to a minimum. A total of 1,000 delta smelt will be collected for these investigations.

# Net Fluxes in the Western Delta /Entrapment Zone Study (IEP Element II.D.1)

Based on last year's results using nets instead of pumps, larval and adult delta smelt could be taken. How the pumps' efficiency compares to the net in regard to take of small fish is not known. Catches will also depend upon the abundance of delta smelt in the sampling area, and this cannot be predicted. The only way to determine the abundance of fish associating with the entrapment zone is to conduct the study. However, it is estimated that no more than 100 delta smelt will be taken as a result of this study.

### Yolo Bypass Investigations (IEP Element II.D.5)

The primary technique to reduce take will be avoidance. Sampling will be done in floodplain areas away from the primary spawning and rearing areas of delta smelt. Inflow to the region comes from the area well upstream of smelt spawning areas. It is possible that some delta smelt stray into this region from the base of the Bypass on their upstream spawning migration, however the area is exceptionally large (40,000 acres) so there is a low probability that smelt would be caught. The primary gear types will be fyke nets, screw traps, beach and purse seines. Less than 100 delta smelt are expected to be captured.

### Georgiana Slough Acoustic Barrier Study, Phase IV (IEP Element II.E.1)

Both the Kodiak trawl and the beach seine can capture juvenile and adult delta smelt. In April and May of 1994, approximately 80 delta smelt were collected in the intensive Kodiak trawling. No smelt were taken with the beach seine. In 1995, the Kodiak trawl took 20 delta smelt at the Real-Time Monitoring sites in Georgiana Slough and the Sacramento River at Walnut Grove.

Beach seining not related to Real-Time Monitoring collected a total of 33 delta smelt. This take was covered under a separate consultation, however, because this study is part of the IEP, the impacts of installation and operation, the reasonable and prudent measures with their implementing terms and conditions, and the take at this site, will now be covered under this consultation. It is estimated that no more than 500 delta smelt will be taken yearly as a result of this study. Sampling will occur only in dry water year types. No sampling will occur in 1997.

# Fish Screen and Screen Criteria Development (IEP Element II F.2)

Due to the number of environmental and hydraulic variables to be tested, many fish will be needed for evaluation and statistical analysis purposes. It is estimated that about 2,000 delta smelt and 2,000 splittail will be needed each year. Delta smelt used for this program are collected by DFG using a 33 m miniature purse seine. Very elaborate transportation protocols are used to transport delta smelt from the wild in order to keep mortalities to a minimum.

### South Delta Temporary Barriers Fisheries Impact Evaluation (IEP Element II.F.4)

Juvenile and adult delta smelt are vulnerable to sampling using electroshocking. However, very few delta smelt have been collected. All delta smelt are immediately returned to the water. However, it is estimated that no more than 25 delta smelt will be taken per year as a result of this study.

# Delta Agricultural Diversion Evaluation (IEP Element II.G.1)

Sampling for this evaluation has been terminated for the present. No future work is currently being planned.

# Contra Costa Canal Entrainment Study (IEP Element II.G.2)

In its first year of operation, the sampling program took only one adult and one juvenile delta smelt. No larval smelt have been reported. To estimate future catches of delta smelt from this limited data is difficult, however, take is not expected to exceed 100.

# Contra Costa Mallard Slough Study (IEP Element II.G.2)

This study began in May of 1995. In May and June a total of 25 larval delta smelt were taken, all from the river. The net is towed so slowly that it is unlikely that juveniles or adults would be captured. However, it is estimated that no more than 25 delta smelt will be taken per year as a result of this study.

# North Bay Aqueduct Entrainment Monitoring (IEP Element II.G.3)

Delta smelt larvae are collected primarily from late March to late May. In 1994, a total of 252 larval delta smelt were caught at three North Bay Aqueduct stations. In 1993, a total of 30 larval delta smelt were caught at the four stations. No sampling was conducted in 1992. Take for this study is also included under the CVP/SWP OCAP Biological Opinion. The estimated annual take for the 1995 sampling season was expected to range from 30 to 252 larval delta smelt. Therefore, it is estimated that no more than 250 delta smelt will be taken as a result of this study.

### Suisun Marsh Diversion Evaluation and Monitoring (IEP Element II.G.4)

It is not possible to identify and remove larval delta smelt from the samples before preservation. Juvenile and adult delta smelt are currently removed from all samples and immediately returned to the adjacent Delta channel away from the diversion. It is estimated that no more than 50 delta smelt will be taken as a result of this study.

# Southern Delta Entrainment Monitoring

Sampling for this evaluation has been terminated for the present. No future work is currently being planned.

The IEP has provided procedures for each of the sampling activities to reduce loss of captured delta smelt, as described in the Description of the Proposed Project section above. The implementation of these procedures should help limit the number of delta smelt effected while still providing the information required under the program.

The IEP has suggested similar techniques during the sampling activities to minimize the take of the proposed Sacramento splittail. The Service believes that these sampling activities will also reduce the loss of Sacramento splittail.

#### **Cumulative Effects**

Cumulative effects include the effects of future State, Tribal, local or private actions that are reasonably certain to occur in the action area considered in these biological and conference opinions. Future Federal actions that are unrelated to this proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

Cumulative effects on Sacramento splittail, delta smelt or its proposed critical habitat also include any continuing or future non-Federal diversions of water that may entrain adult or larval fish or that may decrease outflows incrementally, thus shifting upstream the position of the delta smelt's preferred habitat. Water diversions through intakes serving numerous small, private agricultural lands and duck clubs in the Delta, upstream of the Delta, and in Suisun Bay contribute to these cumulative effects. These diversions also include municipal and industrial uses, as well as

providing water for power plants. State or local levee maintenance and channel dredging activities also destroy or adversely modify critical habitat by disturbing spawning or rearing habitat. Delta smelt adults seek shallow, tidally-influenced, fresh water (i.e., less than 2 ppt salinity) backwater sloughs and edgewaters for spawning. To assure egg hatching and larval viability, spawning areas also must provide suitable water quality (i.e., low concentrations of contaminants) and substrates for egg attachment (e.g., submersed tree roots, branches, emersed vegetation). Suitable water quality must be provided by addressing point sources of contaminants so that maturation is not impaired by pollutant concentrations. Levee maintenance disturbs spawning and rearing habitat, and re-suspends contaminants into these waters.

Additional cumulative effects result from the impacts of point and non-point source chemical contaminant discharges. These contaminants include selenium and numerous pesticides and herbicides associated with discharges related to agricultural and urban activities. Implicated as potential sources of mortality for delta smelt and Sacramento splittail, these contaminants may adversely affect delta smelt and Sacramento splittail reproductive success and survival rates. Spawning habitat may also be affected if submersed aquatic plants used as substrates for adhesive egg attachment are lost due to toxic substances.

#### Conclusion

Because the field sampling activities of the Interagency Ecological Program are being conducted in the Sacramento-San Joaquin Estuary, take that is incidental to the proposed action is expected. This take may include harm, harassment, or kill to all life stages of the delta smelt and Sacramento splittail found in the area of the study.

After reviewing the current status of the delta smelt, the environmental baseline for the action area, the effects of the proposed field sampling activities, and the cumulative effects, it is the Service's biological opinion that the field sampling activities conducted by the Interagency Ecological Program in the Sacramento-San Joaquin Estuary, as proposed, are not likely to jeopardize the continued existence of the delta smelt and are not likely to destroy or adversely modify designated critical habitat.

After reviewing the current status of the Sacramento splittail, the environmental baseline for the action area, the effects of the proposed field sampling activities, and the cumulative effects, it is the Service's conference opinion that the field sampling activities conducted by the Interagency Ecological Program in the Sacramento-San Joaquin Estuary are not likely to jeopardize the continued existence of the Sacramento splittail.

#### INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulations pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without a special exemption. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by impairing behavioral patterns including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this Incidental Take Statement.

The prohibitions found in section 9 of the Act against taking of species do not apply until the species is listed. Therefore, the incidental take statement for Sacramento splittail in this conference opinion does not become effective until the species is listed and the conference opinion is adopted as a biological opinion issued through formal consultation. However, should Reclamation adopt and implement the reasonable and prudent measures, with their implementing terms and conditions, described below, then the amount of incidental take identified in this conference opinion would be authorized until such time as a biological opinion is completed during formal consultation and provided that the amount of incidental take identified in this conference opinion has not been exceeded. Should the level of incidental take identified in this conference opinion be met or exceeded prior to listing of the species, then no additional incidental take of Sacramento splittail may occur between the listing of the Sacramento splittail and the adoption of this conference opinion through formal consultation, or the completion of a subsequent formal consultation.

The measures described below are non-discretionary, and must be implemented by Reclamation so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, in order for the exemption in 7(o)(2) to apply. The Reclamation has a continuing duty to regulate the activity covered by this incidental take statement. If the Reclamation (1) fails to require the applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, and/or (2) fails to retain oversight to ensure compliance with these terms and conditions, the protective coverage of 7(o)(2) may lapse.

#### Amount or Extent of Take

The Service anticipates that a maximum 33,480 individuals of delta smelt could be taken annually as a result of this proposed action and an undeterminable amount of habitat could be impacted as

a result of the field sampling activities of the Interagency Ecological Program for the Sacramento-San Joaquin Estuary. The incidental take is expected to be in the form of harm, harassment and kill. Because the species is wide-ranging and its distribution varies from one year to the next, take may vary from year to year. Additionally, losses of the species may be masked by seasonal fluctuations in numbers. However, based on the numbers of delta smelt taken in past studies, the Service determines that up to 33,480 individuals of delta smelt could be taken directly and incidentally as a result of the proposed action.

The Service anticipates that an unquantifiable number of Sacramento splittail could be taken as a result of the proposed action. The incidental take is expected to be in the form of harm, harassment and kill. Because the species is wide-ranging and its distribution varies from one year to the next, take may vary from year to year. Additionally, losses of the species may be masked by seasonal fluctuations in numbers. However, based on the anticipated numbers of delta smelt to be taken, an equivalent number of Sacramento splittail could be taken directly and incidentally as a result of the proposed action.

#### Effect of the Take

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to the delta smelt or destruction or adverse modification of critical habitat. The Service has also determined that take of 2000 Sacramento splittail is not likely to result in jeopardy to this species.

In the accompanying conference opinion, the Service has determined that the above level of anticipated take is not likely to result in jeopardy to the Sacramento splittail. Because critical habitat for this species has not been designated, destruction or adverse modification is not expected.

#### Reasonable and Prudent Measures

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize the impact of incidental take on the delta smelt.

- 1. The potential for harassment, harm (including habitat modification), kill, or habitat loss for delta smelt shall be minimized and/or compensated.
- 2. The adverse effects on delta smelt resulting from the Delta Juvenile Salmon Monitoring Study shall be minimized.

### Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, the Reclamation must comply with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

- 1. To minimize harassment, harm (including habitat modification), kill, or habitat loss for delta smelt, the action agencies implementing the criteria of the Interagency Ecological Program shall implement procedures to reduce loss of captured delta smelt as described in the proposed project description.
- 2. To minimize the adverse effects on delta smelt resulting from the Delta Juvenile Salmon Monitoring Study, the following sampling protocol shall be implemented:
  - For December 1 through January 31, take of delta smelt shall be limited to 170 per day.
  - For February 1 through April 15, take of delta smelt shall be limited to 100 per week.
  - For April 16 through May 31, take of delta smelt shall be limited to 170 per day.
  - For June 1 through July 31, take of delta smelt shall be limited to 100 per week. Take of adult delta smelt during this period shall not exceed 240.
  - For August 1 through November 30, take of delta smelt shall be limited to 100 per week.

#### Reasonable and Prudent Measures

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize the impact of incidental take on the Sacramento splittail.

- The potential for harassment, harm (including habitat modification), and kill for Sacramento splittail shall be minimized and/or compensated.
- 2. The adverse effects on Sacramento splittail resulting from the proposed studies shall be minimized.

### Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, the Reclamation must comply with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

- 1. To minimize harassment, harm (including habitat modification), and kill for Sacramento splittail, the action agencies implementing the criteria of the Interagency Ecological Program shall reduce loss of captured Sacramento splittail as described in the proposed project description.
- 2. To minimize the adverse effects on Sacramento splittail resulting from the proposed studies, the action agencies implementing the criteria of the Interagency Ecological Program shall develop a plan to reduce take of Sacramento splittail similar to that developed to reduce take of delta smelt.

The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize incidental take that might otherwise result from the proposed action. With implementation of these measures, the Service believes that no more than 33,480 individuals of delta smelt will be incidentally taken. If, during the course of the action, this minimized level of incidental take is exceeded, such incidental take would represent new information requiring review of the reasonable and prudent measures provided. The Federal agency must immediately provide an explanation of the causes of the taking and review with the Service the need for possible modification of the reasonable and prudent measures.

# Reporting Requirements

The Reclamation shall require personnel to report immediately any information about take or suspected take of delta smelt and Sacramento splittail to Dale Sweetnam at CDFG so that the take limits for the various projects can be tabulated. Notification must include the date, time, and precise location of the incident/specimen and any other pertinent information.

#### CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species and the ecosystems upon which they depend. The term "conservation recommendation" has been defined as suggestions and are discretionary agency activities that can be implemented to further the purposes of the Act, such as preservation of endangered species habitat, implementation of recovery actions, or development of information and data bases.

- 1. The Service recommends that the IEP minimize the effects to delta smelt and Sacramento splittail by shifting sampling that occurs in high density areas to areas of lower densities.
- 2. The Service recommends that the IEP develop procedures that further minimize the effects of sampling on delta smelt and Sacramento splittail.
- 3. The Service recommends that the IEP develop alternative sites to conduct the Delta Juvenile Salmon Monitoring Study. Such alternative sites should be either up-stream or down-stream of Chipps Island.
- 4. The Service recommends that the IEP enhance and restore aquatic and wetland habitat in the Sacramento-San Joaquin River estuary.
- 5. The Service recommends that Reclamation and other member agencies assist IEP staff in increasing public awareness of importance of Delta native fishes.
- 6. The Service recommends that the IEP reduce effects of introduced aquatic species on Delta native fishes.

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

#### **REINITIATION - CLOSING STATEMENT**

This concludes formal consultation and conference on the proposed field sampling activities of the Interagency Ecological Program for the Sacramento-San Joaquin Estuary. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if:

(1) the amount or extent of incidental take is exceeded; (2) new information reveal effects of the proposed action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in this opinion; or (4) a new species or critical habitat is designated that may be affected by the proposed action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending re-initiation.

The incidental take statement provided with this conference opinion does not become effective for the Sacramento splittail until the species is listed and the conference opinion is adopted as the biological opinion issued through formal consultation. At that time, the project will be reviewed to determine whether any take of the Sacramento splittail has occurred. Modifications of the opinion and the incidental take statement may be appropriate to reflect that take. No take of the Sacramento splittail may occur between the listing of the Sacramento splittail and the adoption of the conference opinion through formal consultation, or the completion of a subsequent formal consultation.

You may ask the Service to adopt the conference opinion incorporated in this consultation as a biological opinion issued through formal consultation, if the Sacramento splittail is listed. The request must be in writing. If the Service reviews the proposed action and finds that there have been no significant changes in the action as planned, or in the information used during the conference, the Service will adopt the conference opinion as the biological opinion on the project.

Should the Sacramento splittail become listed and after any subsequent adoption of this conference opinion, the Reclamation shall request re-initiation of consultation if: (1) the amount or extent of incidental take is exceeded; (2) new information reveal effects of the proposed action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in this opinion; or (4) a new species or critical habitat is designated that may be affected by the proposed action.

Please contact Matthew D. Vandenberg of this office at (916) 979-2752, if you have any questions.

Sincerely,

Field Superviso

cc:

AES, Portland, OR
Dale Sweetnam, CDFG, Stockton, CA
Pat Brantley, CDFG, Stockton, CA

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#### PERSONAL COMMUNICATIONS

- Coulston, P., California Department of Fish and Game, IEP Program Manager, 4001 N. Wilson Way, Stockton, CA 95205-2424
- Meng, L., U.S. Fish and Wildlife Service, Endangered Species Office, 2800 Cottage Way, Sacramento, California 95825
- Moyle, P.B., University of California, Davis, Davis, California 95616.
- Sweetnam, D., California Department of Fish and Game, Bay-Delta and Special Water Projects Division, 4001 N. Wilson Way, Stockton, CA 95205-2424.

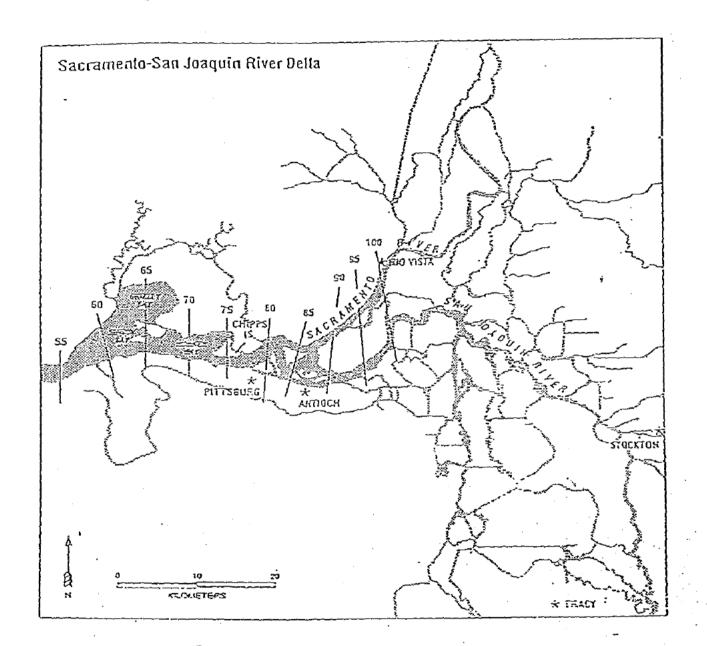


Figure 5 This map of the upper estuary displays sites of the continuous monitoring stations within the study area, and indicates hypothetical positions of a 2 ppt isohaline measured at five kilometer increments upstream from the Golden Gate Bridge.

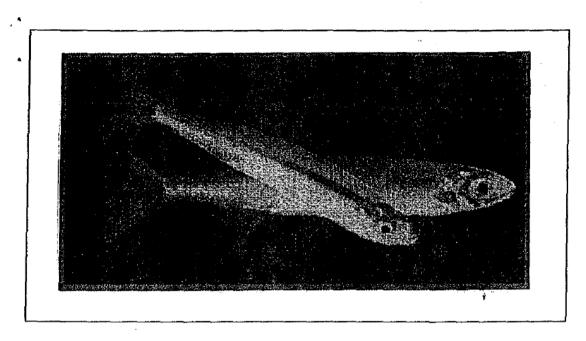


Figure 1. Delta smelt (Hypomesus transpacificus)

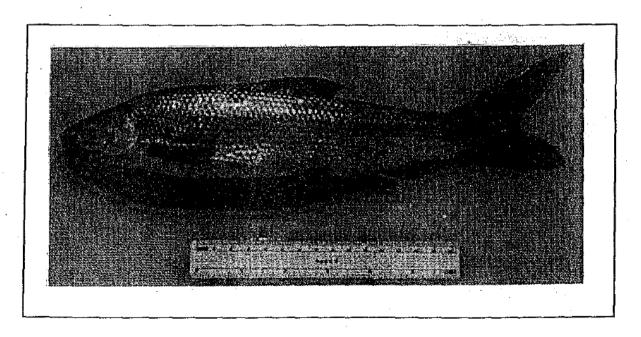


Figure 2. Sacramento splittail (Pogonichthys macorlepidotus)

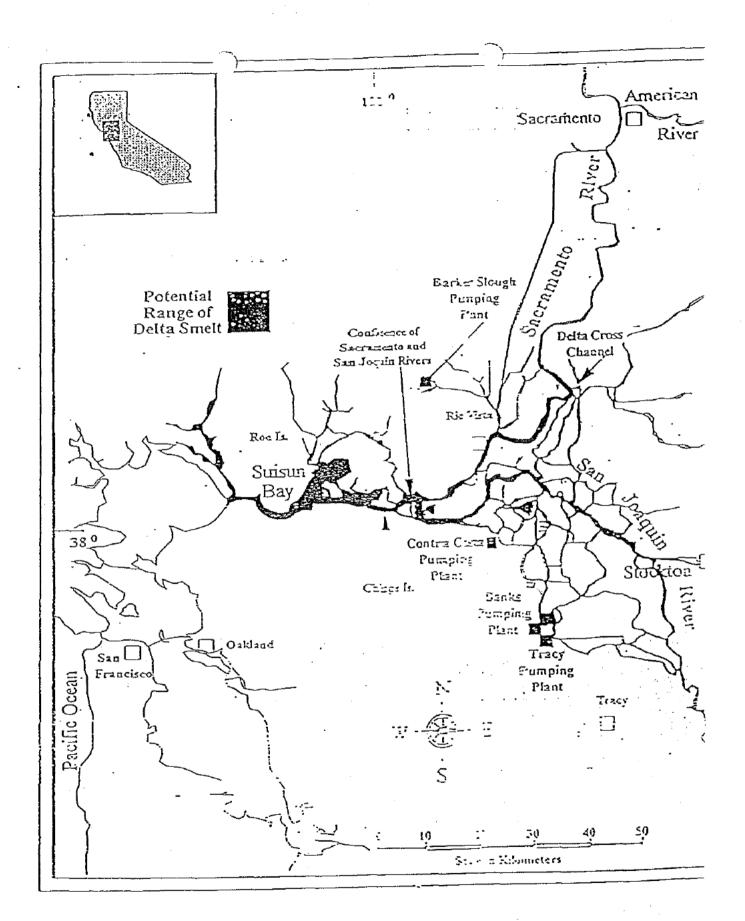
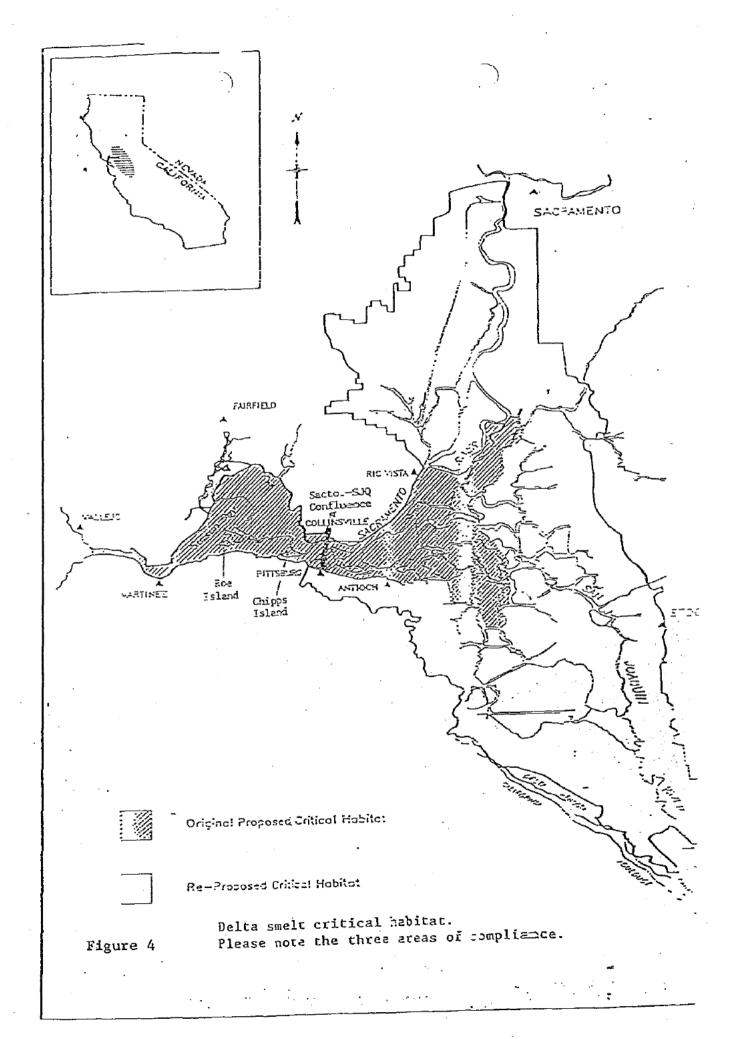


Figure 3



From: Tom Birmingham

Sent: Wednesday, August 13, 2014 1:19 PM

**To:** 'Marklund, Chris' **CC:** 'Bernhardt, David L.'

**Subject:** Section 3406(b)(2) Amendment **Attachments:** 12-17-03 DOI Memo.pdf

Chris,

The following is the proposed language to amend section 3406(b)(2) I suggested:

Section 3406(b)(2) is amended by adding a new subsection (E), "All Central Valley Project water, except Central Valley Project water needed to implement paragraph 3406(d)(1) and allocated pursuant to paragraph (23), used to implement an action undertaken for a fishery beneficial purpose that was not imposed by terms and conditions existing in licenses, permits, and other agreements pertaining to the Central Valley Project under applicable State or Federal law existing on October 30, 1992, shall be credited to the quantity of Central Valley Project yield dedicated and managed under this paragraph; provided, that nothing herein shall affect the Secretary's duty to comply with any otherwise lawful requirement imposed on operations of the Central Valley Project under any provision of federal or state law."

I have also attached the Department of the Interior guidance memorandum on which this is based.

Please let me know if you have any questions.

Tom

# United States Department of the Interior



DEC 1 7 2003



Fish and Wildlife Service California/Nevada Operations Office 2800 Cottage Way, Suite W-2606 Sacramento, California 95825-1846

Bureau of Reclamation Mid-Pacific Region 2800 Cottage Way Sacramento, California 95825-1898

#### . Memorandum

To:

Central Valley Operations Manager, Bureau of Reclamation

Sacramento, California

Field Supervisor, Sacramento Fish and Wildlife Offi

Sacramento, California

From:

Regional Director, Bureau of Reclamation-

Sacramento, California

Manager, California/Nevada Operations Office

Sacramento, California

Subject:

Guidance for Implementation of Section 3406(b)(2) of the CVPIA

This memorandum provides guidance and direction regarding modeling and planning of the annual implementation of Section 3406(b)(2) of the Central Valley Project Improvement Act (hereinafter, "Section 3406(b)(2)" or "(b)(2)"). This guidance concerns Interior's annual dedication and management of Central Valley Project yield pursuant to Section 3406(b)(2), in accordance with the "Department of the Interior Decision on Implementation of Section 3406(b)(2) of the Central Valley Project Improvement Act May 9, 2003 Decision" ("the May 9, 2003 Decision") and with the June 3, 2003 ruling by United States Court of Appeals for the Ninth Circuit. The Ninth Circuit held that the "non-mandatory language of [Section 3406(b)(2)] gives Interior the discretion to allocate the 800,000 acre-feet among fish and wildlife, water quality, and endangered species obligations, as long as Interior's allocation gives effect to the hierarchy of purposes established in Section 3406(b)(2)." This guidance supplements the May 9, 2003 Decision, in light of the June 3, 2003 Ninth Circuit ruling.

The October 1 through September 30 accounting period described in the May 9, 2003 Decision allows Interior to implement actions that effectuate the "hierarchy of purposes" referred to in the June 3, 2003 Ninth Circuit decision. The May 9, 2003 Decision specifically provides for a target of up to 200,000 acre-feet of use in the October through January period, primarily for high priority fish and wildlife uses. Moreover, actions taken pursuant to the 1995 Water Quality Control Plan and State Water Resources Control Board Decision D-1641 ("the 1995 WQCP") involve the dedication and management of Central Valley Project yield for long-term fishery beneficial use and protection. Such actions are not taken to help meet agricultural or municipal and industrial water quality standards that are set forth in the 1995 WQCP. Most of the fishery

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002156

beneficial uses and objectives under the 1995 WQCP and in Reclamation's water right permits help fulfill the fish, wildlife, and habitat restoration purposes and measures authorized by Section 3406(b). Consistent with the June 3, 2003 Ninth Circuit decision, much of the (b)(2) water that is dedicated and managed annually to help meet fishery beneficial use and protection objectives of the 1995 WQCP serves Section 3406(b)(2)'s "primary purpose" of fish, wildlife, and habitat restoration. Therefore, the implementation of Section 3406(b)(2) in accordance with the May 9, 2003 Decision and with this supplemental guidance effectuates the "hierarchy of purposes" in Section 3406(b)(2).

Reclamation and the Service agree to start each year with targets of up to 300,000 acre-feet of (b)(2) water annually for high priority fish and wildlife actions. These may include fish actions on Clear Creek; the Sacramento, American, and Stanislaus Rivers; and in the Delta. Reclamation and the Service further agree with targets of up to 500,000 acre-feet of (b)(2) water annually to help meet WQCP and ESA obligations. The 300,000 acre-feet for fish and wildlife actions will include the target in the May 9 Decision of up to 200,000 acre-feet of use in the October through January period. (Exceeding 200,000 acre-feet can only occur after the Service and Reclamation confer and the Manager of the Service's California Nevada Operations Office and the Director of Reclamation's Mid-Pacific Region concur in writing). Additionally, if the projected and/or realized WQCP/ESA costs for the accounting year exceed the 500,000 acre-feet of (b)(2) water, the Service and Reclamation will confer to determine the best course of action. That conference will address the most beneficial use of the remaining (b)(2) water for fish and wildlife management actions that year, whether they are for fish, wildlife, and habitat restoration purposes or to help meet WQCP standards and ESA obligations. Exceeding 500,000 acre-feet of (b)(2) water used for the WQCP/ESA costs when there are other unmet high priority fish actions. as specified by the Service in coordination with NOAA Fisheries and California Department of Fish and Game, will require written concurrence of both the Manager of the Service's California Nevada Operations Office and the Director of Reclamation's Mid-Pacific Region to allow for proper planning and coordination with project operations.

This guidance does not establish caps but assures that priority actions are carefully weighed against the standards in the WQCP designed for fish and wildlife benefits. These targets should be used in developing assumptions in the modeling. Actions and priorities can be assessed to generally follow this direction. Modeling results will be reviewed to project situations in which adjustments to the targets may be desirable.

The seasonality of actions fits into the accounting period and the time dependent order for determining the priority of actions and need for adjustments to allocations, in general. Fall flow improvements, impacts to export due to Delta Cross Channel gate closures, some wintertime export reductions during fishery migration windows, some wintertime and spring flow and export costs to fishery beneficial uses of the WQCP, Vernalis Adaptive Management Plan (VAMP), and some other spring export reductions during the sensitive estuarine species periods are examples of actions that reflect the seasonality of decisions and operations. Some of the CVP Delta fish actions that cannot be incorporated into the (b)(2) allocations may fall into the Environmental Water Account (EWA) needs.

002157

In annual implementation we can use existing teams and processes to continue to determine priorities of actions and evaluate the consistency with the guidance provided in this memorandum. The May 9 Decision recognizes the considerable coordination that is critical to the implementation of many actions with (b)(2), and implementation of the EWA. The B2IT will advise Reclamation, the Service, the EWAT Team and other members of the Water Operations Management Team (WOMT) when the implementation is varying from the targets and make recommendations for shifting (b)(2) water between such uses. Reclamation and the Service can use input from the WOMT to make informed decisions on priorities of (b)(2) water, although the Directors of Reclamation and the Service will continue to retain final responsibility for such decisions as outlined in the CVPIA, Interior's May 9 Decision and herein.

Reclamation and the Service understand that we must wisely use the discretion provided in the CVPIA and implementation policy in the dedication and management of (b)(2) water each year, taking into consideration fishery conditions, hydrology, reservoir storage, and other associated actions.



002158

**From:** Tom Birmingham

Sent: Wednesday, August 13, 2014 1:48 PM

**To:** 'Watts, John (Feinstein)' **CC:** 'Bernhardt, David L.'

**Subject:** Conservation Amendments

**Attachments:** Conservation Amendments.docx

John,

Attached is a document I prepared based on our discussion at lunch. There should be no reasonable objections to this proposal.

Tom

#### Amend CVPIA section 3405(b) as follows:

(b) Metering of Water Use Required.——No later than January 1, 2019, Aall Central Valley Project water service or repayment contracts for made available for agricultural, municipal, or industrial purposes that are entered into, renewed, or amended under any provision of Federal Reclamation law after the date of enactment of this title, shall provide that the contracting district or agency shall be delivered through ensure that all surface water delivery systems that within its boundaries are equipped with water measuring devices or water measuring methods of comparable effectiveness acceptable to the Secretary.—within five years of the date of contract execution, amendment, or renewal, and that any new surface water delivery systems installed within its boundaries on or after the date of contract renewal are so equipped. The contracting district, or agency, or person shall inform the Secretary and the State of California annually as to the monthly volume of surface water delivered within its boundaries.

Amend CVPIA section 3405(e) by adding a new subparagraph (4):

- (e) Water Conservation Standards.--The Secretary shall establish and administer an office on Central Valley Project water conservation best management practices that shall, in consultation with the Secretary of Agriculture, the California Department of Water Resources, California academic institutions, and Central Valley Project water users, develop criteria for evaluating the adequacy of all water conservation plans developed by project contractors, including those plans required by section 210 of the Reclamation Reform Act of 1982.
  - (1) Criteria developed pursuant to this subsection shall be established within six months following enactment of this title and shall be reviewed periodically thereafter, but no less than every three years, with the purpose of promoting the highest level of water use efficiency reasonably achievable by project contractors using best available cost-effective technology and best management practices. The criteria shall include, but not be limited to agricultural water suppliers' efficient water management practices developed pursuant to California State law or reasonable alternatives.
  - (2) The Secretary, through the office established under this subsection, shall review and evaluate within 18 months following enactment of this title all existing conservation plans submitted by project contractors to determine whether they meet the conservation and efficiency criteria established pursuant to this subsection.
  - (3) In developing the water conservation best management practice criteria required by this subsection, the Secretary shall take into account and grant substantial deference to the recommendations for action specific to water conservation and drainage source reduction proposed in the Final Report of the San Joaquin Valley Drainage Program, entitled A Management Plan for Agricultural Subsurface Drainage and Related Problems on the Westside San Joaquin Valley (September 1990).
  - (4) No later than January 1, 2019, all Central Valley Project water made for agricultural, municipal, or industrial purposes shall be delivered and used in a manner consistent with water conservation and efficiency criteria approved by the Secretary.

From: Watts, John (Feinstein)

Sent: Wednesday, August 13, 2014 2:59 PM

**To:** Thomas Birmingham; Roger K. Patterson (rpatterson@mwdh2o.com) (rpatterson@mwdh2o.com)

CC: Burman, Brenda W; Bernhardt, David L.; Bradley Cavallo; Yeung, Felix (Feinstein)

Subject: Draft revisions to language on temporary operational flexibility during the 2014-2015 season, and

NMFS estimates of increased salmon survival benefits

**Attachments:** temporary operational flexibility revise 8-13-14.docx; salmon revisions 8-13-14.docx

Hi all. As I mentioned to you in my email this morning, I have drafted revisions to the language on temporary operational flexibility during the next water year (this is not a redline because I substantially rewrote the section), and the NMFS estimates of increased survival benefits to salmon from various management measures (this is in redline from the draft language you have previously seen).

I would like to get your feedback by tomorrow so I can have revised language ready to share with agency staff when we have a call with them, possibly on Friday. Let me know if you want to set up a call tomorrow to discuss these changes or other efforts we can make in anticipation of the agency feedback possibly on Friday. I think we should all be thinking about possible agency concerns like excessively prescriptive language, additional litigation risk for them, the infeasibility form their perspective of certain provisions, cost and resources concerns and how to respond to them, and so on. We should be thinking of what changes we are willing to make to the preliminary proposal, and what we are not willing to change.

Below I have copied the explanations for these changes from the email I sent this morning:

- 1) Temporary operational flexibility during 2014-2015 storms language: After some intensive internal discussion in the Feinstein office, we believe it is critically important to be able to say that no part of the proposal overrides agencies' ability to manage the projects based on the best available science or impose prescriptive outcomes in place of the existing provisions of the biological opinions. Accordingly, we are revising the temporary operational flexibility language to set a target rather than a mandate of operating the CVP and SWP at OMR levels of -7500 cfs for 21 cumulative days of high outflow. For any particular storm, the agencies can impose the RPAs from the biops if they can show it is necessary to do so for avoiding jeopardy, giving great weight to whether or not they are on track to exceed the incidental take levels in the BiOps. If for a particular storm the agencies lower pumping below OMR levels of -7500 cfs due to the presence of significant numbers of fish near the pumps, for example, the period pumping is below OMR levels of -7500 cfs will not count toward the 21 cumulative days of high outflow with significant pumping allowed. If this approach works, we can say that the agencies retain the authority at any point to restrict pumping to avoid jeopardy based on science but we believe we still are likely to get OMR levels of -7500 cfs for 21 days of high outflow (perhaps stretched further over the water year rather than all in December or January).
- 2) Increased survival estimates for salmon: I am virtually certain NMFS staff are going to say that they cannot provide quantitative estimates of increased survival percentages for each of the listed salmonid species and all management measures. I am going to revise this language to require them to provide estimates of increased survival percentages that are quantitative to the extent possible, and qualitative to the extent they cannot fully quantify them. I am going to also make clear that NMFS must rank the management measures to the maximum extent possible by the magnitude of their expected contribution to increased species survival.

I do not propose any changes (except minor conforming changes based on the revisions described above) at this time to the key operational language requiring NMFS to compare limitations on OMR flows below -5000 cfs and the i/e ratio to other management measures, and in order to find these export restrictions necessary to avoid jeopardy, requiring them to show that any technically feasible alternative management measures with the same or greater increased survival benefits have fewer adverse consequences, including a concise evaluation of adverse consequences to other affected interests.

### Section \_\_\_\_. Temporary Operational Flexibility for First Few Storms of 2014-2015 Water Year.

### (a) Findings:

- 1) During the 2014 water year, operations of the Central Valley Project and the State Water Project caused zero take of Delta smelt, and only [insert] take of salmonids, which is only [insert] percent of the incidental take level for the salmonids.
- 2) Despite the absence of any take of smelt and the very low levels of take of salmon, during and after storm events in the 2014 water year, the Central Valley Project and State Water Project never exceeded a combined pumping capacity of \_\_\_\_\_ cubic feet per second over a 14-day average.
- 3) As stated in Section \_\_\_\_, the latest scientific studies have not shown a substantiated connection between water pumping and salmon survival rates.
- 4) Hydrological conditions in dry years, such as the 2014 water year, have not triggered water pumping restrictions pursuant to the 2008 smelt biological opinion.
- 5) By exercising administrative flexibility in operating the Central Valley Project water pumps, the project was able to pump an additional \_\_\_\_\_ acre feet of water between [this date] and [that date].
- 6) The Secretaries should be allowed more flexibility to increase pumping levels without causing for fish and other endangered Species or weakening other environmental protections.
- 7) Given California's severe drought conditions, significant groundwater withdrawals for irrigation due to lack of surface water supplies, and the depletion of water supplies in reservoirs, it is imperative that the Secretaries exercise the flexibility provided herein to capture the maximum amount of storm flows when and if they occur in the 2014-2015 water year, so that farms, businesses, and homes in the areas with the most severe drought risks will have an opportunity to bolster their meager supplies when water is available.
- (b) Goal. To the maximum extent possible consistent with avoiding jeopardy under the Endangered Species Act under subsection (d) and in accordance with other state and federal laws (including regulations) as described in subsection (e), the Secretaries shall authorize the Central Valley Project and the State Water Project, combined, to operate at levels that result in Old and Middle River flows at -7500 cubic feet per second for 21 cumulative days of high outflow after October 1, 2014, as described in subsection (c).
- (c) Days of high outflow. The days of high outflow described in subsection (b) shall constitute days that the California Department of Water Resources determines the daily average river flow of the Sacramento River is at, or above, 17,000 cubic feet per second as measured at the Sacramento River at Freeport gauge maintained by the United States Geologic Survey.
- (d) Avoiding jeopardy. In carrying out this section, the Secretaries may continue to impose any requirements under the biological opinions during any period of high outflow if they:

- (1) Demonstrate, including an explanation of the data examined and the connection between those data and the choice made, why such provisions are necessary in the short-term to avoid jeopardy after considering other alternatives, if any, that may have a lesser water supply impact; and
- (2) Give great weight in any analysis of potential jeopardy to whether incidental take levels in the applicable biological opinions are likely to be exceeded by the proposed action or are on track to being exceeded by the proposed action and other actions.
- (e) Other environmental protections.
  - 1) The Secretaries' actions under this section shall be consistent with applicable regulatory requirements under state law, including State Water Resources Control Board Decision 1641, as it may be implemented in any given year, are met;
  - 2) This section shall not have any effect on the applicable requirements of the salmonid biological opinion from April 1 to May 31, unless the Secretary of Commerce finds that some or all of such applicable requirements may be relaxed during this time period to provide emergency water supply relief without causing jeopardy;
  - 3) During operations under this section, the Commissioner of Reclamation, in coordination with the Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife, shall undertake a monitoring program and other data gathering to insure take limits levels are not exceeded, and to identify potential actions to mitigate any impacts to species listed as threatened or endangered under the Endangered Species Act, 16 U.S.C. 1531-1544; and
  - 4) The Commissioner is authorized to take any action, including the transfer of appropriated funds between accounts that, in the Commissioner's judgment, are necessary to mitigate the impacts of such operations as long as any such mitigation is consistent with the requirements off this section.
- (f) Technical adjustments to target period. If, before the goal in subsection (b) is met, the Secretaries operate the Central Valley Project and the State Water Project combined at levels that result in Old and Middle River flows less negative than -7500 cubic feet per second during days of high outflow as defined in subsection (c), the duration of such operation shall not be counted toward the 21 cumulative days specified in subsection (b).
- (f) Effect on running averages. For the purpose of carrying out subsection (b), the periods during which the combined operations of Central Valley Project and the State Water Project result in Old and Middle River flows more negative than -5000 cubic feet per second, and the actual flow rates during such periods, shall not be counted toward the 5-day and 14-day running averages of tidally filtered daily Old and Middle River flow requirements under the biological opinions.
- (g) Level of detail required for analysis. In articulating the determinations required under this section, the Secretaries shall fully satisfy the requirements herein but shall not be expected to

provide a greater level of supporting detail for the analysis than feasible to provide within the short time frame permitted for timely decision-making in response to changing conditions in the Delta.

#### Section \_\_\_\_. Process for Ensuring Salmonid Management Is Responsive to New Science.

- (a) Purpose. In response to the significant new science since the adoption of the salmonid biological opinion over 5 years ago, including the new science described in section \_\_\_\_\_, the Secretary shall issue a written reevaluation and determination, in accordance with the standards and procedures in subsections (b)-(e) whether
  - (1) certain water export limitations in the salmonid biological opinion are necessary to avoid jeopardy, or
  - (2) such limitations provide minor benefits that are either unnecessary for species survival or can be more effectively achieved through broadening or initiating any of a range of alternative management measures.
- (b) FRAMEWORK FOR EVALUATING THE NECESSITY OF MANAGEMENT MEASURES FOR AVOIDING JEOPARDY.
  - (1) In General. In order to have the tools to evaluate whether certain water export limitations are necessary to avoid jeopardy in light of new science, the Secretary shall estimate how much those export restrictions contribute to the survival of the species as compared to the contributions to species survival from a broad range of other management measures.
  - (2) ESTIMATES OF HOW MUCH DIFFERENT MANAGEMENT MEASURES CONTRIBUTE TO SPECIES SURVIVAL. No later than December 31, 2016, the Secretary shall, in collaboration with the California Department of Fish and Wildlife, after taking account of the best scientific and commercial data available and giving greater weight to more recent data better reflecting current conditions in the Delta, for each listed salmonid species issue final quantitative estimates of the percentage increase in through-Delta survival the Secretary expects to be achieved
    - (A) with export restrictions specified within RPA Actions IV.2.1 that limit flow to -5000 cubic feet per second compared to limiting flow to -2500 cubic feet per second, based on a given rate of San Joaquin River inflow to the Delta and holding other relevant factors constant;
    - (B) with inflow to export restrictions specified within RPA Actions IV.2.3 as compared to inflow to export requirements found in State Water Resources Control Board decision D-1641, based on a given rate of San Joaquin River inflow to the Delta and holding other relevant factors constant;
    - (C) by a trap-and-barge program based on the experience of other comparable systems and the studies described in section\_\_\_\_, as they become available;

- (D) through habitat enhancement programs;
- (E) through predation control programs;
- (F) through the use of temporary barriers, the Cross Channel Gates, Head of Old River Barrier, and other projects affecting flow in the Delta;
- (G) by implementing a trapping program at the entrance to Clifton Court Forebay to capture (and provide safe transport) for entrained juvenile salmonids to the western Delta, and
- (H) through the use of other management programs.
- (3) ESTIMATES TO BE QUANTITATIVE TO THE MAXIMUM EXTENT FEASIBLE. OF A RANGE OF INCREASED SURVIVAL PERCENTAGE.
  - (A) To the maximum extent feasible, in estimating the benefits to the species from the management measures under paragraph (2), the Secretary shall provide quantitative estimates, such as a range of percentage increases in through-Delta survival that could result from the management measures. may provide a range of increased survival percentages for any of the measures in paragraph (2), if the Secretary determines that the best scientific and commercial data available does not support an estimate of a specific percentage.
  - (B) If the Secretary cannot provide a quantitative estimate of the benefits to the species from a particular management measure, the Secretary shall qualitatively estimate the benefits. The Secretary shall limit any such range to increased survival percentages that the Secretary determines have a reasonable probability of occurring.
  - (C) If the Secretary provides qualitative estimates of the benefits to the species from one or more management measures, the Secretary shall, to the maximum extent feasible, rank the management measures described in paragraph (2) in terms of their most likely expected contribution to increased through-Delta survival relative to the other measures.
  - (4) DRAFT ESTIMATES, PUBLIC COMMENT, AND SCHEDULE.
    - (A) No later than February 1, 2015, the Secretary shall make available to the public the study design, including the data and analyses that the Secretary intends to utilize, for determining estimates of <u>increased through-Delta</u> survival <u>benefits for the speciespercentages</u>, and shall provide an opportunity for public comment on the study design until April 30, 2015;

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- (B) The Secretary shall issue draft quantitative estimates no later than December 31, 2015 that will temporarily serve as a reference until the Secretary issues the final quantitative estimates.
- (C) Concurrent with issuance of the draft <del>quantitative</del> estimates, the Secretary also shall make available to the public all data and analyses that were utilized or relied upon to develop the draft <del>quantitative</del> estimates.
- (D) The Secretary shall provide an opportunity for public comment on the draft quantitative estimates for a period of four months.
- (5) REVISIONS TO ESTIMATES. The Secretary shall update the final quantitative estimates
  - (A) periodically as necessary to address new scientific information, and after a five-year period since the last update if requested to do so by the Governor of California; and
  - (B) following the same process set forth in paragraph (4), other than the deadlines prescribed for specific calendar dates.
- (c) SCIENTIFICALLY SUPPORTED IMPLEMENTATION OF OLD AND MIDDLE RIVER FLOW REQUIREMENTS.
  - (1) Nothing in this subsection shall affect the salmonid biological opinion's limitation of flow in the Old and Middle River greater (more negative) than -5000 cubic feet per second as described in the salmonid biological opinion.
  - (2) Beginning January 1, 2016, in managing Old and Middle River flow pursuant to the salmonid biological opinion or any successor biological opinion, the Secretary shall:
    - (A) Consider the relevant provisions in the biological opinion and other relevant data; and
    - (B) Articulate the basis for the Secretary's determination to require raised or lowered OMR flow levels within the range established by the salmonid biological opinion or any successor biological opinion, including an explanation of the data examined and the connection between those data and the choice made, and a showing that any limitation of OMR flow to levels less negative than -5000 cubic feet per second in the short-term is necessary to avoid jeopardy; and
  - (3) In any analysis of potential jeopardy conducted pursuant to paragraph (2)(B), the Secretary shall explain why implementation of this measure in particular is necessary to avoid jeopardy, including by determining either
    - (A) It is not technically feasible or within federal jurisdiction to achieve any

increased survival benefit of the same or greater quantity from broadening or initiating any of the management measures described in subsection (b)(2) or other alternative management measures, including measures implemented with the support of a substantial contribution from water districts; or

- (B) If it is technically feasible and within federal jurisdiction to implement any such alternative management measures, the adverse consequences of doing so exceed the adverse consequences of limiting OMR flow to levels less negative than -5000 cubic feet per second, including a concise evaluation of the adverse consequences to other affected interests; or
- (C) If it is technically feasible but not within federal jurisdiction to implement certain such alternative management measures, the Secretary shall specifically describe such determination and the alternative management measure or measures.
- (4) If at the time the Secretary conducts the analysis in paragraph (3), the Secretary has not issued the draft or final quantitative estimates of increased through-Delta survival benefits percentages fromer different management measures pursuant to subsection (b), the Secretary shall compare the benefits to the species fromef different management measures based on the best scientific and commercial data available at the time.
- (d) SCIENTIFICALLY SUPPORTED IMPLEMENTATION OF INFLOW/EXPORT REQUIREMENTS.
  - (1) Beginning April 1, 2016, in relation to the provisions limiting the ratio of water exports from the Delta in relation to flow in the San Joaquin River beyond what is required under the State Water Resources Control Board Decision D-1641 pursuant to the salmonid biological opinion and any successor biological opinion, the Secretary shall:

    - (B) Articulate an explanation, including of the data examined and the connection between those data and the choice made, why a limitation beyond that required under the State Water Resources Control Board Decision D-1641 in the short-term is necessary to avoid jeopardy as a prerequisite to continuing Action IV.2.3 of the salmonid biological opinion or any equivalent successor provision.
  - (2) In any analysis of potential jeopardy conducted pursuant to paragraph (1)(B), the Secretary shall explain why implementation of this measure in particular is necessary to avoid jeopardy, including by determining either

- (A) It is not technically feasible or within federal jurisdiction to achieve any increased survival benefit of the same or greater quantity from broadening or initiating any of the management measures described in subsection (b)(2) or other alternative management measures, including measures implemented with the support of a substantial contribution from water districts; or
- (B) If it is technically feasible and within federal jurisdiction to implement any such alternative management measures, the adverse consequences of doing so exceed the adverse consequences of limiting the ratio of water exports from the Delta in relation to flow in the San Joaquin River beyond what is required under the State Water Resources Control Board Decision D-1641, including a concise evaluation of the adverse consequences to other affected interests; or
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- (e) JUDICIAL REVIEW. Determinations by the Secretary of OMR flow determinations under subsection (c) and inflow/export ratio determinations under subsection (d) shall constitute final agency action.

From: Nelson, Damon

Sent: Wednesday, August 13, 2014 6:23 PM

**To:** Tom Birmingham **CC:** Bernhardt, David L.

Subject: Re: IEP incidental take of delta smelt

## Ty

```
Sent from my iPhone
```

> <FWS\_BO\_F123R.pdf>

From: Tom Birmingham

**Sent:** Thursday, August 14, 2014 7:30 AM

**To:** 'Nelson, Damon' **CC:** 'Bernhardt, David L.'

**Subject:** Calculating Reverse Flow

#### Damon,

I spoke to Reclamation, and they confirmed there would be benefits from direction to develop a more precise way of calculating reverse flow, but they did not offer any specific language. I suggest that the following:

Within 90 days of the enactment of this title, the Secretary is directed, in consultation with the California Department of Water Resources, to revise the method used to calculate reverse flow in Old and Middle Rivers for implementation of the reasonable and prudent alternative in the 2008 Delta smelt biological opinion, and any succeeding biological opinion, for the purpose of increasing Central Valley Project and State Water Project water supplies. The method of calculating reverse flow in Old and Middle Rivers shall be reevaluated not less than every two years thereafter to achieve maximum pumping rates at the W.C. "Bill" Jones Pumping Plant and the Harvey O. Banks Pumping Plant within limits established by the 2008 Delta smelt biological opinion and any succeeding biological opinion.

The same provision would be included in the title dealing with the 2009 biological opinion.

Tom

**From:** Tom Birmingham

Sent: Thursday, August 14, 2014 7:32 AM

To: 'Nelson, Damon' CC: 'Bernhardt, David L.' Subject: FW: OMR Index

Immediately after my last email, I received the following from a close friend.

Last night I could not find a write up of the current OMR Index Pilot study that was in theory in place this last year, but something like this might keep the focus on the improvement loop necessary to make an Index more advantageous to water supplies:

Department of the Interior, working collaboratively with the California Department of Water Resources, is to report to Congress on the findings of the 2014 OMR Flow Index Pilot Study focusing on the effectiveness of the Index implemented this last year and any recommended refinements to the index methodology to improve water supplies and operational efficiency.

From: Nelson, Damon

Sent: Thursday, August 14, 2014 9:11 AM

**To:** Tom Birmingham **CC:** 'Bernhardt, David L.' **Subject:** RE: OMR Index

#### So this language is preferable?

**From:** Tom Birmingham [mailto:tbirmingham@westlandswater.org]

**Sent:** Thursday, August 14, 2014 10:32 AM

**To:** Nelson, Damon **Cc:** 'Bernhardt, David L.' **Subject:** FW: OMR Index

Immediately after my last email, I received the following from a close friend.

Last night I could not find a write up of the current OMR Index Pilot study that was in theory in place this last year, but something like this might keep the focus on the improvement loop necessary to make an Index more advantageous to water supplies:

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From: Tom Birmingham

Sent: Thursday, August 14, 2014 7:25 PM

To: 'Watts, John (Feinstein)'

CC: 'Patterson, Roger K'; 'Bernhardt, David L.'; 'Bradley Cavallo'; 'Yeung, Felix (Feinstein)'

Subject: FW: Draft revisions to language on temporary operational flexibility during the 2014-2015 season,

and NMFS estimates of increased salmon survival benefits

**Attachments:** salmon revisions 8-13-14.docx

John,

I made some minor revisions to the attached document. Otherwise the document you sent look fine.

Tom

**From:** Watts, John (Feinstein) [mailto:John\_Watts@feinstein.senate.gov]

Sent: Wednesday, August 13, 2014 2:59 PM

**To:** Thomas Birmingham; Roger K. Patterson (rpatterson@mwdh2o.com) (rpatterson@mwdh2o.com)

Cc: Burman, Brenda W; Bernhardt, David L.; Bradley Cavallo; Yeung, Felix (Feinstein)

Subject: Draft revisions to language on temporary operational flexibility during the 2014-2015 season, and NMFS

estimates of increased salmon survival benefits

Hi all. As I mentioned to you in my email this morning, I have drafted revisions to the language on temporary operational flexibility during the next water year (this is not a redline because I substantially rewrote the section), and the NMFS estimates of increased survival benefits to salmon from various management measures (this is in redline from the draft language you have previously seen).

I would like to get your feedback by tomorrow so I can have revised language ready to share with agency staff when we have a call with them, possibly on Friday. Let me know if you want to set up a call tomorrow to discuss these changes or other efforts we can make in anticipation of the agency feedback possibly on Friday. I think we should all be thinking about possible agency concerns like excessively prescriptive language, additional litigation risk for them, the infeasibility form their perspective of certain provisions, cost and resources concerns and how to respond to them, and so on. We should be thinking of what changes we are willing to make to the preliminary proposal, and what we are not willing to change.

Below I have copied the explanations for these changes from the email I sent this morning:

- 1) Temporary operational flexibility during 2014-2015 storms language: After some intensive internal discussion in the Feinstein office, we believe it is critically important to be able to say that no part of the proposal overrides agencies' ability to manage the projects based on the best available science or impose prescriptive outcomes in place of the existing provisions of the biological opinions. Accordingly, we are revising the temporary operational flexibility language to set a target rather than a mandate of operating the CVP and SWP at OMR levels of -7500 cfs for 21 cumulative days of high outflow. For any particular storm, the agencies can impose the RPAs from the biops if they can show it is necessary to do so for avoiding jeopardy, giving great weight to whether or not they are on track to exceed the incidental take levels in the BiOps. If for a particular storm the agencies lower pumping below OMR levels of -7500 cfs due to the presence of significant numbers of fish near the pumps, for example, the period pumping is below OMR levels of -7500 cfs will not count toward the 21 cumulative days of high outflow with significant pumping allowed. If this approach works, we can say that the agencies retain the authority at any point to restrict pumping to avoid jeopardy based on science but we believe we still are likely to get OMR levels of -7500 cfs for 21 days of high outflow (perhaps stretched further over the water year rather than all in December or January).
- 2) <u>Increased survival estimates for salmon:</u> I am virtually certain NMFS staff are going to say that they cannot provide quantitative estimates of increased survival percentages for each of the listed salmonid species and all

management measures. I am going to revise this language to require them to provide estimates of increased survival percentages that are quantitative to the extent possible, and qualitative to the extent they cannot fully quantify them. I am going to also make clear that NMFS must rank the management measures to the maximum extent possible by the magnitude of their expected contribution to increased species survival.

I do not propose any changes (except minor conforming changes based on the revisions described above) at this time to the key operational language requiring NMFS to compare limitations on OMR flows below -5000 cfs and the i/e ratio to other management measures, and in order to find these export restrictions necessary to avoid jeopardy, requiring them to show that any technically feasible alternative management measures with the same or greater increased survival benefits have fewer adverse consequences, including a concise evaluation of adverse consequences to other affected interests.

#### Section \_\_\_\_. Process for Ensuring Salmonid Management Is Responsive to New Science.

- (a) Purpose. In response to the significant new science since the adoption of the salmonid biological opinion over 5 years ago, including the new science described in section \_\_\_\_\_, the Secretary shall issue a written reevaluation and determination, in accordance with the standards and procedures in subsections (b)-(e) whether
  - (1) certain water export limitations in the salmonid biological opinion are necessary to avoid jeopardy, or
  - (2) such limitations provide minor benefits that are either unnecessary for species survival or can be more effectively achieved through broadening or initiating any of a range of alternative management measures.
- (b) FRAMEWORK FOR EVALUATING THE NECESSITY OF MANAGEMENT MEASURES FOR AVOIDING JEOPARDY.
  - (1) IN GENERAL. In order to have the tools to evaluate whether certain water export limitations are necessary to avoid jeopardy in light of new science, the Secretary shall estimate the extent to which how much those export restrictions contribute to the survival of the species as compared to the contributions to species survival from a broad range of other management measures.
  - (2) ESTIMATES OF HOW MUCH DIFFERENT MANAGEMENT MEASURES CONTRIBUTE TO SPECIES SURVIVAL. No later than December 31, 2016, the Secretary shall, in collaboration with the California Department of Fish and Wildlife, <u>based on after taking account of</u> the best scientific and commercial data available and giving greater weight to more recent data better reflecting current conditions in the Delta, for each listed <u>anadromous salmonid species</u> issue final <u>quantitative</u> estimates of the <u>percentage</u> increase in through-Delta survival the Secretary expects to be achieved
    - (A) with export restrictions specified within RPA Actions IV.2.1 that limit flow to -5000 cubic feet per second compared to limiting flow to -2500 cubic feet per second, based on a given rate of San Joaquin River inflow to the Delta and holding other relevant factors constant;
    - (B) with inflow to export restrictions specified within RPA Actions IV.2.3 as compared to inflow to export requirements found in State Water Resources Control Board decision D-1641, based on a given rate of San Joaquin River inflow to the Delta and holding other relevant factors constant;
    - (C) by a trap-and-barge program based on the experience of other comparable systems and the studies described in section\_\_\_\_, as they become available;

- (D) through habitat enhancement programs;
- (E) through predation control programs;
- (F) through the use of temporary barriers, the Cross Channel Gates, Head of Old River Barrier, and other projects affecting flow in the Delta;
- (G) by implementing a trapping program at the entrance to Clifton Court Forebay to capture (and provide safe transport) for entrained juvenile salmonids to the western Delta, and
- (H) through the use of other management programs.
- (3) ESTIMATES TO BE QUANTITATIVE TO THE MAXIMUM EXTENT FEASIBLE. OF A RANGE OF INCREASED SURVIVAL PERCENTAGE.
  - (A) To the maximum extent feasible, in estimating the benefits to the species from the management measures under paragraph (2), the Secretary shall provide quantitative estimates, such as a range of percentage increases in through-Delta survival that could result from the management measures. may provide a range of increased survival percentages for any of the measures in paragraph (2), if the Secretary determines that the best scientific and commercial data available does not support an estimate of a specific percentage.
  - (B) If the Secretary cannot provide a quantitative estimate of the benefits to the species from a particular management measure, the Secretary shall qualitatively estimate the benefits. The Secretary shall limit any such range to increased curvival percentages that the Secretary determines have a reasonable probability of occurring.

(C) If the Secretary provides qualitative estimates of the benefits to the species from one or more management measures, the Secretary shall, to the maximum extent feasible, rank the management measures described in paragraph (2) in terms of their most likely expected contribution to increased through-Delta survival relative to the other measures.

(4) DRAFT ESTIMATES, PUBLIC COMMENT, AND SCHEDULE.

(A) No later than February 1, 2015, the Secretary shall make available to the public the study design, including the data and analyses that the Secretary intends to utilize, for determining estimates of <u>increased through-Delta</u> survival <u>benefits for the speciespercentages</u>, and shall provide an opportunity for public comment on the study design until April 30, 2015;

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- (B) The Secretary shall issue draft quantitative estimates no later than December 31, 2015 that will temporarily serve as a reference until the Secretary issues the final quantitative estimates.
- (C) Concurrent with issuance of the draft quantitative estimates, the Secretary also shall make available to the public all data and analyses that were utilized or relied upon to develop the draft quantitative estimates.
- (D) The Secretary shall provide an opportunity for public comment on the draft quantitative estimates for a period of four months.
- (5) REVISIONS TO ESTIMATES. The Secretary shall update the final quantitative estimates
  - (A) periodically as necessary to address new scientific information, and after a five-year period since the last update if requested to do so by the Governor of California; and
  - (B) following the same process set forth in paragraph (4), other than the deadlines prescribed for specific calendar dates.
- (c) SCIENTIFICALLY SUPPORTED IMPLEMENTATION OF OLD AND MIDDLE RIVER FLOW REQUIREMENTS.
  - (1) Nothing in this subsection shall affect the salmonid biological opinion's limitation of flow in the Old and Middle River greater (more negative) than -5000 cubic feet per second as described in the salmonid biological opinion.
  - (2) Beginning January 1, 2016, in managing Old and Middle River flow pursuant to the salmonid biological opinion or any successor biological opinion, the Secretary shall:
    - (A) Consider the relevant provisions in the biological opinion and other relevant data; and
    - (B) Articulate the basis for the Secretary's determination to require raised or lowered OMR flow levels within the range established by the salmonid biological opinion or any successor biological opinion, including an explanation of the data examined and the connection between those data and the choice made, and a showing that any limitation of OMR flow to levels less negative than -5000 cubic feet per second in the short-term is necessary to avoid jeopardy; and
  - (3) In any analysis of potential jeopardy conducted pursuant to paragraph (2)(B), the Secretary shall explain why implementation of this measure in particular is necessary to avoid jeopardy, including by determining either
    - (A) It is not technically feasible or within federal jurisdiction to achieve any

increased survival benefit of the same or greater quantity from broadening or initiating any of the management measures described in subsection (b)(2) or other alternative management measures, including measures implemented with the support of a substantial contribution from water districts; or

- (B) If it is technically feasible and within federal jurisdiction to implement any such alternative management measures, the adverse consequences of doing so exceed the adverse consequences of limiting OMR flow to levels less negative than -5000 cubic feet per second, including a concise evaluation of the adverse consequences to other affected interests; or
- (C) If it is technically feasible but not within federal jurisdiction to implement certain such alternative management measures, the Secretary shall specifically describe such determination and the alternative management measure or measures.
- (4) If at the time the Secretary conducts the analysis in paragraph (3), the Secretary has not issued the draft or final quantitative estimates of increased through-Delta survival benefits percentages from or different management measures pursuant to subsection (b), the Secretary shall compare the benefits to the species from of different management measures based on the best scientific and commercial data available at the time.
- (d) SCIENTIFICALLY SUPPORTED IMPLEMENTATION OF INFLOW/EXPORT REQUIREMENTS.
  - (1) Beginning April 1, 2016, in relation to the provisions limiting the ratio of water exports from the Delta in relation to flow in the San Joaquin River beyond what is required under the State Water Resources Control Board Decision D-1641 pursuant to the salmonid biological opinion and any successor biological opinion, the Secretary shall:

    - (B) Articulate an explanation, including of the data examined and the connection between those data and the choice made, why a limitation beyond that required under the State Water Resources Control Board Decision D-1641 in the short-term is necessary to avoid jeopardy as a prerequisite to continuing Action IV.2.3 of the salmonid biological opinion or any equivalent successor provision.
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- (e) JUDICIAL REVIEW. Determinations by the Secretary of OMR flow determinations under subsection (c) and inflow/export ratio determinations under subsection (d) shall constitute final agency action.

**Sent:** Friday, August 15, 2014 11:26 AM

**To:** Thomas Birmingham; Roger K. Patterson (rpatterson@mwdh2o.com) (rpatterson@mwdh2o.com)

CC: Burman, Brenda W; Bernhardt, David L.

**Subject:** Stand by for a possible call in the 630 to 8 pm EDT range this evening, or midday tomorrow

Hi all.

CEQ is trying to set up a call to discuss agency feedback on the water language at 4 pm EDT. If this call happens, I would like to have a followup call with you all. Are you available either

- 1) Between 630 and 8 pm EDT this evening? Or
- 2) Tomorrow sometime, such as at 11 am EDT, when we did the call last week?

If people are available, I would prefer to do the call this evening, but I could also do it tomorrow morning.

Best,

John

From: Patterson, Roger K

Sent: Friday, August 15, 2014 11:28 AM

To: Watts, John (Feinstein)

CC: Thomas Birmingham; Burman, Brenda W; Bernhardt, David L.

Subject: Re: Stand by for a possible call in the 630 to 8 pm EDT range this evening, or midday tomorrow

I would have to do tomorrow morning. Thx.

On Aug 15, 2014, at 11:25 AM, "Watts, John (Feinstein)" < John Watts@feinstein.senate.gov > wrote:

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**Sent:** Friday, August 15, 2014 11:30 AM

To: 'Patterson, Roger K'

CC: Thomas Birmingham; Burman, Brenda W; Bernhardt, David L.

Subject: RE: Stand by for a possible call in the 630 to 8 pm EDT range this evening, or midday tomorrow

Roger, Could you do 6 pm EDT this evening, or sometime later than 8 pm EDT this evening?

From: Patterson,Roger K [mailto:RPatterson@mwdh2o.com]

Sent: Friday, August 15, 2014 2:28 PM

**To:** Watts, John (Feinstein)

Cc: Thomas Birmingham; Burman, Brenda W; Bernhardt, David L.

**Subject:** Re: Stand by for a possible call in the 630 to 8 pm EDT range this evening, or midday tomorrow

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From: Patterson, Roger K

Sent: Friday, August 15, 2014 11:47 AM

**To:** Watts, John (Feinstein)

CC: Thomas Birmingham; Burman, Brenda W; Bernhardt, David L.

Subject: Re: Stand by for a possible call in the 630 to 8 pm EDT range this evening, or midday tomorrow

6 edt today. Thx

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**Sent:** Friday, August 15, 2014 11:49 AM

To: 'Patterson, Roger K'

CC: Thomas Birmingham; Burman, Brenda W; Bernhardt, David L.

**Subject:** RE: Stand by for a possible call in the 630 to 8 pm EDT range this evening, or midday tomorrow

If that works for everyone, let's try for that. Roger, can you reforward your call-in info? Thanks.

From: Patterson,Roger K [mailto:RPatterson@mwdh2o.com]

**Sent:** Friday, August 15, 2014 2:47 PM

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Cc: Thomas Birmingham; Burman, Brenda W; Bernhardt, David L.

**Subject:** Re: Stand by for a possible call in the 630 to 8 pm EDT range this evening, or midday tomorrow

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To: Watts, John (Feinstein)

Cc: Thomas Birmingham; Burman, Brenda W; Bernhardt, David L.

Subject: Re: Stand by for a possible call in the 630 to 8 pm EDT range this evening, or midday

tomorrow

I would have to do tomorrow morning. Thx.

On Aug 15, 2014, at 11:25 AM, "Watts, John (Feinstein)" < John Watts@feinstein.senate.gov> wrote:

Hi all.

CEQ is trying to set up a call to discuss agency feedback on the water language at 4 pm EDT. If this call happens, I would like to have a followup call with you all. Are you available either

- 1) Between 630 and 8 pm EDT this evening? Or
- 2) Tomorrow sometime, such as at 11 am EDT, when we did the call last week?

If people are available, I would prefer to do the call this evening, but I could also do it tomorrow morning.

Best,

John

please notify the sender immediately by return e-mail message and delete the original and all copies of the communication, along with any attachments or embedded links, from your system.						

From: Patterson, Roger K

Sent: Friday, August 15, 2014 11:56 AM

**To:** Watts, John (Feinstein)

CC: Thomas Birmingham; Burman, Brenda W; Bernhardt, David L.

Subject: Re: Stand by for a possible call in the 630 to 8 pm EDT range this evening, or midday tomorrow

Thx. 213-217-7888. 7781#

Talk to you then.

On Aug 15, 2014, at 11:49 AM, "Watts, John (Feinstein)" < John Watts@feinstein.senate.gov> wrote:

If that works for everyone, let's try for that. Roger, can you reforward your call-in info? Thanks.

**From:** Patterson,Roger K [mailto:RPatterson@mwdh2o.com]

**Sent:** Friday, August 15, 2014 2:47 PM

**To:** Watts, John (Feinstein)

Cc: Thomas Birmingham; Burman, Brenda W; Bernhardt, David L.

**Subject:** Re: Stand by for a possible call in the 630 to 8 pm EDT range this evening, or midday

tomorrow

6 edt today. Thx

On Aug 15, 2014, at 11:30 AM, "Watts, John (Feinstein)" < John Watts@feinstein.senate.gov> wrote:

Roger, Could you do 6 pm EDT this evening, or sometime later than 8 pm EDT this evening?

From: Patterson,Roger K [mailto:RPatterson@mwdh2o.com]

**Sent:** Friday, August 15, 2014 2:28 PM

**To:** Watts, John (Feinstein)

**Cc:** Thomas Birmingham; Burman,Brenda W; Bernhardt, David L.

Subject: Re: Stand by for a possible call in the 630 to 8 pm EDT range this evening, or

midday tomorrow

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**Sent:** Friday, August 15, 2014 12:16 PM

**To:** Thomas Birmingham; Roger K. Patterson (rpatterson@mwdh2o.com) (rpatterson@mwdh2o.com)

CC: Bernhardt, David L.; Burman, Brenda W

**Subject:** FW: Preliminary Administration Analysis and Feedback on Draft Drought Legislation. **Attachments:** FINAL Feinstein Drought Legislatation Combined Agency Feedback 08 15 2014.pdf

**Importance:** High

Confidential, please do not share with anyone.

**From:** Bauserman, Trent [mailto:Trenton\_D\_Bauserman@ceq.eop.gov]

**Sent:** Friday, August 15, 2014 3:01 PM

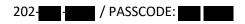
To: Watts, John (Feinstein); Albritton, Jason (EPW)

**Cc:** Amanda. Hallberg; Jeremy Bratt (jeremy\_bratt@ios.doi.gov); Norris, Nate; Velasco, Ryan **Subject:** Preliminary Administration Analysis and Feedback on Draft Drought Legislation.

Importance: High

John and Jason,

Please find attached the Administration's analysis and feedback on the draft drought bill and its supporting materials you shared with us. In order to facilitate your need to expedite this bill, we have setup a call with NOAA, DOI and CEQ staff at 4 PM to discuss our analysis and paths forward to possible solutions to the issues we've identified.



I am going to try and jump on the call; however, my brother and his wife are delivering their baby right now (yay!) and I actually have to hit the road so I may not make it. Members of the CEQ team will be on the call as will agency folks so I think you'll have critical mass.

After you've had a chance to review and chat, I am happy to follow-up to discuss next steps.

**Thanks** 

Trent

#### Trenton D. Bauserman

Associate Director for Legislative Affairs Council on Environmental Quality Executive Office of the President

(202) direct (202) mobile tbauserman@ceq.eop.gov

## **Comments on Draft California Drought Legislation**

As requested by Sen. Feinstein and Sen. Boxer

Note: The text that was provided for review is incomplete, with potentially critical gaps and placeholders. These comments address only what was provided for review on July 29, 2014, and primarily address new/additional provisions not previously reviewed.

These comments incorporate feedback and analysis by the Department of the Interior (DOI) and the National Oceanic and Atmospheric Administration (NOAA).

## **Topline:**

- The draft legislation directs Federal agency actions and restricts agency discretion in conducting certain activities, which has the potential to:
  - o Limit the ability of an agency to use the best methods and/or science to address evolving issues by focusing on a particular approach;
  - o Cause unintended consequences contrary to the intended goals of the legislation;
  - o Provide benefits to specific stakeholders and interest groups to the detriment of others and/or the environment; and
  - Cause conflict and inconsistency between this draft legislation and other laws and agency regulations.
- The draft legislation directs new and expanded agency activities without providing funding/appropriations, which will strain the fiscal resources of the agencies and potentially impact other high priority activities. There are a number of provisions in the draft bill that are technically or scientifically very difficult to implement, as they require a level of detail and precision that outstrip existing data.
- The determination on the appropriate use of alternative arrangements to address emergencies [ex. Rim Fire] is made by CEQ and CEQ has not determined their use is appropriate when dealing with long standing issues. If enacted, this sets a bad precedent that could have significant ramifications in the future as others may seek to emulate this model. The focus is, and should remain, on appropriately applying NEPA in federal decisionmaking.
- A number of the timelines, and subsequent NEPA review, in the draft legislation are not realistically achievable.
- The requirement to apply the ESA "jeopardy" legal standard to each element of these operating criteria parses or segments the jeopardy analysis into very small units of actions and effects which is inconsistent with section 7 of the ESA and technically infeasible.
- This legislation would significantly alter some of the fundamental assumptions regarding project operations that are embedded in the analyses for BDCP and other actions being studied for potential implementation. This may cause many of these ongoing efforts to change or alter analyses which can cause significant delay.

- Activities mandated in the draft legislation will redirect agency focus and personnel
  resources away from other agency and Administration priorities such as the Bay-Delta
  Conservation Plan (BDCP), Remanded Biological Opinions (Remand), and related
  Section 7 consultations, and cause significant delays to those activities. The activities in
  the draft legislation may also impact agency focus on critical and real-time evolving
  water management needs to address the ongoing drought.
- The legislation, if enacted, would almost certainly result in a new round of aggressive litigation from disaffected water contractors or the NGO community that will swamp orderly implementation.
- Proposed changes to Reclamation Safety of Dams Act. The Administration continues to analyze this provision and will follow-up shortly with additional feedback.

### **General Comments from DOI:**

- The draft legislation prescribes what information and data can be used in an Endangered Species Act (ESA) Section 7 consultation which is potentially inconsistent with the ESA's mandate to use the best available scientific information.
  - The draft legislation includes extensive direction to the US Fish and Wildlife Service (USFWS) for what information on Delta smelt should be used in Section 7 consultations. The USFWS and NOAA's National Marine Fisheries Service (NMFS) (collectively the Services) have detailed regulations on ESA Section 7 consultations. These regulations specify that the Services should use best available scientific and commercial information when conducting Section 7 consultations. The legislation could be counter to our Section 7 regulations. Accordingly, it would establish an adverse precedent for the USFWS using the best available information, which is the ESA statutory standard, in its consultations on complex and potentially controversial activities that affect listed species.
- By establishing deadlines for consultations between Federal agencies, the draft potentially creates a conflict with the requirements of Section 7.
  - The draft legislation would require the USFWS to revise the incidental take statement in the 2008 Biological Opinion by October 1, 2015. Projecting incidental take is already one of the tasks that will be required to permit the BDCP, complete the Remand, and complete related Section 7 consultations. The imposition of an arbitrary deadline undermines USFWS's ability to efficiently work with other action agencies and may adversely affect consultation schedules.
- Specific monitoring requirements for information collection will limit flexibility in the future.
  - o There is great value in supplemental monitoring for Delta smelt, including "early warning" trawling for Delta smelt. There are also likely important weaknesses in the long-term monitoring programs for this species, and we have taken the lead in investigating better approaches. However, monitoring requirements need to be

based on up-to-date science and careful consideration of the management questions that need to be addressed. Rather than recognizing this, the draft legislation prescribes when, where, and what type of monitoring should be conducted for Delta smelt. This prescriptive approach limits flexibility and potentially commits crucial resources to activities that are neither efficient nor appropriate.

- The daily real-time smelt monitoring requirements, while they could reduce smelt salvage, would likely result in large amounts of smelt take. USFWS should be able to exercise its discretion to conduct monitoring in a way that balances the risk of salvage take against the risk of smelt take resulting from monitoring.
- Interior is currently fully engaged in working to complete the BDCP, working on the remanded 2008 Biological Opinion, and will work on the Section 7 consultations needed to permit the BDCP. Dedicating personnel resources to the efforts described in this draft legislation would require Interior to re-task staff currently working on BDCP-related activities and lengthen the timeline for getting to decisions on all of those items. This statement is particularly applicable to the activities in the "Delta Smelt Management", "Salmonid Management", and "Operational Flexibility/Drought Relief" sections of the draft legislation.
- Overall the draft legislation provides some levels of specificity on certain activities, but not enough to operate as a new set of "rules" for how to consult or operate; which can lead to potential conflict with consultation regulations.
  - This sets the stage for litigation, as it provides fodder for lawsuits for not following the consultation regulations or, if the agencies follow the consultation regulations, they could be sued for not following the legislative language.
- No appropriations or funding are provided to undertake the activities specified in the draft legislation. Many sections discuss activities with potential for high cost, and the costs may be reimbursable to the CVP contractors.

#### **General Comments from NOAA:**

- The text of the section entitled "Process for Ensuring Salmonid Management is Responsive to New Science" would require NOAA to compare the effects of export restrictions on survival of affected listed species to contributions to survival from a "broad range of other management measures." The "broad range" evokes the "range of alternatives" requirement under the National Environmental Policy Act (NEPA requires only a "reasonable range") and invites litigation of how broad is broad enough.
- The legislation would also require "a showing" that any restriction on OMR flows "is necessary to avoid jeopardy," or to demonstrate that "minor benefits" can be more effectively achieved through "any of a range of alternative management measures". This appears to require a precise determination that a single measure is necessary to avoid jeopardy, where the ESA requires that the jeopardy determination apply to the entire suite of recommendations as a whole, which in the case of this BiOp encompasses 72 measures. The breadth of the scope of comparison to "any range of alternatives" demonstrates the litigation risks mentioned above.

- A third lack of clarity that increases risk of litigation is the requirement to conduct comparative jeopardy analyses of the existing RPA, which includes D-1641 operations required by state law in the baseline, to project operations governed by D-1641 alone. A legislative requirement to conduct a jeopardy analysis on D-1641, which was promulgated in 2000, severely increases the complexity in drawing a proper baseline, which has been contested in the current litigation.
- The section on "Scientific Studies in 2015" calls for implementation of a trap and haul pilot program for juvenile salmon to increase their survivals through the Delta, with permits to be issued by March, 2015. There are significant feasibility and cost questions with regard to catching hundreds of juveniles needed to study the effectiveness of this project and the timelines are not achievable. In addition, study results will not be determined until the juveniles return as adults, no earlier than 2018.
- NOAA also has concerns with the "Temporary Operational Flexibility for First Few Storms of 2014-2015 Water Year" section. Specifically, with an operation at -7500cfs, this could have significant negative effects to endangered winter run salmon that enter the Delta on those first pulses and rear in the Delta through March. As long the current BiOp measures remain in place beginning January 1, we would be less concerned and would want to focus implementation of this effort pre-January through the existing Real Time Drought Operations team.

## **General Comments from CEQ:**

• <u>Water Storage: Section</u> \_\_\_\_. ACCOUNTABILITY FOR COMPLETING CALFED STORAGE FEASIBILITY STUDIES.

This provision imposes financial penalties by withholding funds for failing to meet schedules set under another provision (subsection (c) of the section entitled **Other Storage Feasibility Studies** in the current draft).

The potential release of withheld funds could mitigate the ultimate impact; however, that is driven by an imposed timeline to conclude the environmental review. There is no provision for modifying the schedule, and extending deadlines, when warranted. We have strong concerns that these timelines are tight and may be difficult to satisfy and that a potential rush to meet deadlines and avoid penalties may prevent meaningful and substantive review of environmental issues. For example, these deadlines may conflict with periods of extended public comment or initiating supplemental environmental review, if necessary. We believe rushed decisions lead to substantive vulnerabilities, thereby making an agency open to potential litigation.

• Section \_\_\_\_. OTHER STORAGE FEASIBILITY STUDIES. Note: subsection (h) makes this section applicable to remaining work on CALFED Storage Studies- that could impact the ability of those to meet those timelines and trigger the financial penalties.

We can support the timely designation of lead agencies in subsection (a) and cooperating agencies as set out in subsection (b). However, we are concerned that the subsection (b) provision regarding intent to submit comments can be read to exclude agencies with jurisdiction by law or special expertise from being engaged in schedule development (under (c)) and any determination regarding sufficiency of the NEPA review (under (d)(1)). This limits the option for agencies to decline cooperating agency status based on a lack of resources or competing priorities yet still fulfill their legal responsibilities. We can support lead agencies engaging relevant parties early in the process and setting schedules as set out in subsection (c). We also support establishing accountability; however, the level of effort can detract from available resources and thereby add potential for further delay. The accountability through semi-annual reporting to Senate EPW and House NR raises this concern. We also suggest that the drafter consider whether there are any non-Federal approvals that may delay the environmental review process.

Subsection (d) on environmental reviews has provisions we can support: preparing a single environmental review document when sufficient to comply with law and regulation (the need to allow additional work and potentially a second document for 404 permits is thereby covered); timelines that can be modified for good cause; making information available to all stakeholders; and raising issues of concern as early as possible. We note that the currently unspecified (blank) public comment periods should be no less than required under CEQ NEPA regulations as potentially extended by agency NEPA implementing procedures.

We can support subsection (e) provisions on concurrent review actions. Note that the call for "creation of a list of all data that is needed to carry out an environmental review process" should not be read as requiring a complete listing of all possible data – such a task will not be cost effective because of changing science and data as well as the fact that the level and type of information will vary by the proposed storage facility and the potential intensity of its effects.

We can support the subsection (e) provisions on administrative record and data management.

We are very concerned that the subsection (f) provisions on non-Federal project sponsors as lead or co-lead agencies will be difficult to enforce and the perception and risk of undue influence over the process outweigh potential benefits.

## **General Comments from OMB:**

• We have concerns with and oppose the section on "Prioritizing State Revolving Funds During Droughts". This section which would require California to prioritize State Revolving Fund (SRF) money to projects that provide additional water supplies. This would disrupt normal state SRF priority-setting, and may result in projects with greater public health and environmental benefits not being funded.

**Sent:** Friday, August 15, 2014 12:38 PM

**To:** 'Thomas Birmingham'; 'Roger K. Patterson (rpatterson@mwdh2o.com) (rpatterson@mwdh2o.com)'

CC: 'Bernhardt, David L.'; 'Burman, Brenda W'

Subject: RE: Preliminary Administration Analysis and Feedback on Draft Drought Legislation.

I will talk to you all at 6.

Just to be clear, I am not asking you to join the 4 pm call with the agencies and Boxer staff. Thanks.

From: Watts, John (Feinstein)

**Sent:** Friday, August 15, 2014 3:16 PM

**To:** Thomas Birmingham; Roger K. Patterson (rpatterson@mwdh2o.com) (rpatterson@mwdh2o.com)

Cc: Bernhardt, David L.; Burman, Brenda W

Subject: FW: Preliminary Administration Analysis and Feedback on Draft Drought Legislation.

Importance: High

Confidential, please do not share with anyone.

**From:** Bauserman, Trent [mailto:Trenton D Bauserman@ceq.eop.gov]

**Sent:** Friday, August 15, 2014 3:01 PM

**To:** Watts, John (Feinstein); Albritton, Jason (EPW)

**Cc:** Amanda. Hallberg; Jeremy Bratt (<u>jeremy bratt@ios.doi.gov</u>); Norris, Nate; Velasco, Ryan **Subject:** Preliminary Administration Analysis and Feedback on Draft Drought Legislation.

Importance: High

John and Jason,

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202- / PASSCODE:

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After you've had a chance to review and chat, I am happy to follow-up to discuss next steps.

Thanks

Trent

#### Trenton D. Bauserman

Associate Director for Legislative Affairs Council on Environmental Quality Executive Office of the President

(202) direct (202) mobile

tbauserman@ceq.eop.gov

From: Patterson, Roger K

Sent: Friday, August 15, 2014 4:46 PM

**To:** Watts, John (Feinstein)

CC: Thomas Birmingham; Bernhardt, David L.; Burman, Brenda W

Subject: Re: Preliminary Administration Analysis and Feedback on Draft Drought Legislation.

Sorry I missed the end of the call. Lost connection.

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**Sent:** Friday, August 15, 2014 3:16 PM

**To:** Thomas Birmingham; Roger K. Patterson (rpatterson@mwdh2o.com) (rpatterson@mwdh2o.com)

Cc: Bernhardt, David L.; Burman, Brenda W

Subject: FW: Preliminary Administration Analysis and Feedback on Draft Drought Legislation.

Importance: High

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**From:** Bauserman, Trent [mailto:Trenton D Bauserman@ceq.eop.gov]

**Sent:** Friday, August 15, 2014 3:01 PM

**To:** Watts, John (Feinstein); Albritton, Jason (EPW)

**Cc:** Amanda. Hallberg; Jeremy Bratt (<u>jeremy bratt@ios.doi.gov</u>); Norris, Nate; Velasco, Ryan **Subject:** Preliminary Administration Analysis and Feedback on Draft Drought Legislation.

**Importance:** High

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Executive Office of the President (202) direct (202) mobile

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**Sent:** Monday, August 18, 2014 6:23 AM

**To:** Thomas Birmingham; Roger K. Patterson (rpatterson@mwdh2o.com) (rpatterson@mwdh2o.com);

Bernhardt, David L.; 'Burman, Brenda W'

Subject: FW: Confidential: Questions for FWS/Interior policy team

**Attachments:** proposal cost estimates 8-11-14.xlsx

#### Fyi, please keep confidential

From: Watts, John (Feinstein)

Sent: Monday, August 18, 2014 8:57 AM

**To:** Bauserman, Trent (Trenton D Bauserman@ceq.eop.gov)

Cc: Albritton, Jason (EPW); Esquivel, Joaquin (Boxer); Yeung, Felix (Feinstein); John Bezdek (John\_Bezdek@ios.doi.gov);

'Belin, Letty'; Washburn, Elizabeth (elizabeth\_washburn@ios.doi.gov)

Subject: Confidential: Questions for FWS/Interior policy team

For the call with the Fish and Widlife Service policy team, we would ask to explore whether we can collectively agree or come as close to agreement as possible on the key principles underlying the Delta smelt language in the proposal.

Idea #1)

- a) It is appropriate to revise the incidental take level for the Delta smelt based on new scientific information since the smelt biological opinion was issued in 2008; and
- b) Setting a deadline for this revision to be completed is a way to prioritize this action and to make sure it happens.

Idea #2) If we are trying to find ways to minimize water supply losses while fully maintaining the protections for the Delta smelt, one good way to do so is to focus on times when there are turbid waters near the pumps during the period from December to March. If the agencies can identify whether or not smelt are present in significant numbers near the pumps during these times, the agencies can ratchet down pumping when the smelt are present and allow greater pumping to continue when the smelt are not present. Isn't this a way for both the smelt and water users to benefit?

Follow-up questions related to Idea #2) Interior's comments state that "The daily real-time smelt monitoring requirements, while they could reduce smelt salvage, would likely result in large amounts of smelt take." Two questions about this:

- a) Is there a way to do monitoring that minimizes take from monitoring?
- b) If you were conducting frequent but not daily monitoring during high turbidity periods from December to March, what is the frequency of monitoring that you believe would minimize combined take from salvage and monitoring?

Idea #3) It would be useful to conduct a smelt distribution study to determine the geographic areas and types of habitat occupied by smelt during all life stages.

Idea #4) When the Fish and Wildlife Service believes it is necessary to reduce Old and Middle River flow levels below the -5000 cfs level within the range provided by the biological opinion, the agency does so because there is scientific evidence that substantial harm to the smelt would otherwise result. The agency can briefly document its reasoning for limiting pumping in this manner.

Question: Do you agree with the cost estimates for smelt activities in the attached spreadsheet?

We would also be happy to discuss any points the FWS/Interior policy team wants to raise.

# Salmon Legislation Cost Estimates

Section (a) (b)	Scientific Studies in 2015	Trap and Barge Enhanced 6-year Study
Section	Process for Ensuring Salmonid	Survival benefits
Section	Nonnative reduction pilot program	(b)(1)(A): Phase 1 (b)(1)(B): Phase 2 (b)(1)©: Phase 3
Section	New actions to benefit Central Valley salmonids	Spring Chinook weirs
Delta Smelt I	Legislation Cost Estimates	
Section R	evise Incidental Take Level Calculation to Reflect Nev	v Science
(b) Increased	actoring Increased Real-Time Monitoring I Monitoring to Inform Real-time Oper. ta Smelt Distribution Study	Sampling Scientific Investigation
Section	Mark Fishery	w/ mass marking
		w/ mass tagging

Field Tech FTE	Biologist FTE	\$56,000 Field Tech Cost	\$135,000 Biologist Cost	Annual Direct Costs
1 0.5		\$56,000 \$28,000	\$67,500 \$44,550	\$350,000 \$ 1,200,000
	0.5	\$0	\$200,000	
	0.75	\$0	\$101,250	
	Unknow	n until Phase 1 co	mpleted	
1		\$56,000	\$135,000	\$400,000
	TOTAL	\$140,000	\$818,300	\$7,750,000
				Annual
				Staff Time
				\$100,000
				\$1,000,000
				\$2,000,000
				40 400 000
	TOAL			\$3,100,000
	Overall Total w/o	ut Marking progra	m	\$3,100,000
	Overall Total w/or	ut Marking progra ve costs with Mar		\$3,100,000
	Overall Total w/or	ve costs with Mar		\$3,100,000

\$473,500 \$1,272,550

\$200,000

\$101,250

\$591,000 **\$2,638,300** 

\$3,100,000

\$5,738,300

\$1,735,000 **\$7,473,300**  + \$4.8 million one-time cost to purchase four AutoFish Tagging Traile

\$4,335,000

+ \$4.8 million one-time cost to purchase four AutoFish Tagging Traile

:rs

From: Watts, John (Feinstein)

**Sent:** Monday, August 18, 2014 6:25 AM

**To:** Thomas Birmingham; Roger K. Patterson (rpatterson@mwdh2o.com) (rpatterson@mwdh2o.com);

Bernhardt, David L.; 'Burman, Brenda W'; Bradley Cavallo

**Subject:** FW: Confidential: policy questions for NMFS/Commerce team

**Attachments:** proposal cost estimates 8-11-14.xlsx

#### Fyi, please keep confidential

From: Watts, John (Feinstein)

Sent: Monday, August 18, 2014 9:00 AM

**To:** Bauserman, Trent (Trenton D Bauserman@ceq.eop.gov)

Cc: Albritton, Jason (EPW); Esquivel, Joaquin (Boxer); Yeung, Felix (Feinstein); John Bezdek (John\_Bezdek@ios.doi.gov);

'Belin, Letty'; Washburn, Elizabeth (elizabeth\_washburn@ios.doi.gov) **Subject:** Confidential: policy questions for NMFS/Commerce team

For the call with the National Marine Fishery Service/ Commerce policy team, we would ask to explore whether we can collectively agree or come as close to agreement as possible on the key principles underlying the salmonid language in the proposal:

Idea #1) There are alternative management measures that could reduce the threat of jeopardy to the salmonid species which either are not being implemented now or could be implemented much more broadly, including predator/invasive species controls, habitat enhancements, and trap-and-barge of fish through the Delta that spawn in-river and swim themselves to the Delta.

Idea #2) If two alternative management measures have the same benefits in terms of reducing the threat of jeopardy to listed species, as a general matter it would be preferable to implement the measure that avoids significant harm to other affected interests.

Idea #3) It is worth evaluating and testing whether the through-Delta survival of salmonid smolts swimming out the San Joaquin River could be increased through trapping and barging the smolts through the Delta. Among the relevant considerations are the following:

- A) Recent acoustic telemetry and other studies have shown poor through-Delta survival rates for smolts that swim themselves out the Lower San Joaquin through the Delta, with the fall run chinook salmon smolts' through-Delta survival rates ranging from only 2 percent to no higher than 12 percent since 2006.
- B) Trap-and-barge of salmon smolts has been implemented on the Columbia River, which shows this can be done.
- C) On the Columbia River, trapped-and-barged salmonid smolts have seen much higher outmigrating survival rates of 54 to 96 percent for the population as a whole, and even higher for the individual smolts that were trapped and barged.
- D) If a study is done in early 2015 to test the effectiveness of trapping and barging salmonid smolts in this manner, data on the proportion of trapped and barge smolts that survive outmigration through the Delta should be available later in 2015.

Idea #4) When the National Marine Fisheries Service believes it is necessary to reduce Old and Middle River flow levels below the -5000 cfs level pursuant to the biological opinion, the agency does so because there is scientific evidence that substantial harm to the smelt would otherwise result. The agency can briefly document its reasoning for limiting pumping in this manner.

Questions: Is the major concern with the "Temporary Operational Flexibility for First Few Storms of 2014-2015 Water Year" section that under the draft language, harm to winter run salmon could result at particular times beginning in January with operation of the Delta at -7500 cfs Old and Middle River flow levels? Are the winter-run salmon near the pumps in significant numbers at all times beginning in January, or only at certain times? What other data are available to suggest that such harms would occur, and is there data that suggests take of salmon could approach incidental take levels in the biological opinion?

Do you agree with the cost estimates for salmon activities in the attached spreadsheet?

We would also be happy to discuss any points the NMFS/Commerce policy team wants to raise.

# Salmon Legislation Cost Estimates

Section (a) (b)	Scientific Studies in 2015	Trap and Barge Enhanced 6-year Study
Section	Process for Ensuring Salmonid	Survival benefits
Section	Nonnative reduction pilot program	(b)(1)(A): Phase 1 (b)(1)(B): Phase 2 (b)(1)©: Phase 3
Section	New actions to benefit Central Valley salmonids	Spring Chinook weirs
Delta Smelt I	Legislation Cost Estimates	
Section R	evise Incidental Take Level Calculation to Reflect Nev	v Science
(b) Increased	actoring Increased Real-Time Monitoring I Monitoring to Inform Real-time Oper. ta Smelt Distribution Study	Sampling Scientific Investigation
Section	Mark Fishery	w/ mass marking
		w/ mass tagging

Field Tech FTE	Biologist FTE	\$56,000 Field Tech Cost	\$135,000 Biologist Cost	Annual Direct Costs
1 0.5		\$56,000 \$28,000	\$67,500 \$44,550	\$350,000 \$ 1,200,000
	0.5	\$0	\$200,000	
	0.75	\$0	\$101,250	
	Unknow	n until Phase 1 co	mpleted	
1		\$56,000	\$135,000	\$400,000
	TOTAL	\$140,000	\$818,300	\$7,750,000
				Annual
				Staff Time
				\$100,000
				\$1,000,000
				\$2,000,000
				40 400 000
	TOAL			\$3,100,000
	Overall Total w/o	ut Marking progra	m	\$3,100,000
	Overall Total w/or	ut Marking progra ve costs with Mar		\$3,100,000
	Overall Total w/or	ve costs with Mar		\$3,100,000

\$473,500 \$1,272,550

\$200,000

\$101,250

\$591,000 **\$2,638,300** 

\$3,100,000

\$5,738,300

\$1,735,000 **\$7,473,300**  + \$4.8 million one-time cost to purchase four AutoFish Tagging Traile

\$4,335,000

+ \$4.8 million one-time cost to purchase four AutoFish Tagging Traile

:rs

From: Watts, John (Feinstein)

Sent: Monday, August 18, 2014 6:26 AM

**To:** Thomas Birmingham; Roger K. Patterson (rpatterson@mwdh2o.com) (rpatterson@mwdh2o.com);

Bernhardt, David L.; 'Burman, Brenda W'

Subject: FW: Confidential: questions for BOR/CEQ policy team

#### Fyi, please keep confidential

From: Watts, John (Feinstein)

Sent: Monday, August 18, 2014 9:11 AM

**To:** Bauserman, Trent (Trenton\_D\_Bauserman@ceq.eop.gov)

Cc: Albritton, Jason (EPW); Esquivel, Joaquin (Boxer); Yeung, Felix (Feinstein); John Bezdek (John Bezdek@ios.doi.gov);

'Belin, Letty'; Washburn, Elizabeth (elizabeth\_washburn@ios.doi.gov)

Subject: Confidential: questions for BOR/CEQ policy team

For the call with the Bureau of Reclamation and CEQ policy teams, we would ask to explore whether we can collectively agree or come as close to agreement as possible on the key principles involved underlying the proposal:

#### **Storage projects**

- 1) It has been more than 11 years since the CALFED storage feasibility studies were initiated. Only one feasibility study is scheduled to be finalized before the end of 2014.
- 2) Surface storage facilities are indispensable in the management of California water supplies, and thus there is strong federal, state, and local interests in finishing the feasibility studies as soon as possible.
- 3) After 11 years, it is not unreasonable for Congress to establish deadlines based on input from Reclamation already provided to us and to enforce such deadlines.
- 4) The reversible financial penalty proposed is exactly the same as one that has become law (Water Resources Reform and Development Act of 2014). The assessment (\$20,000 per week) is also calibrated to avoid jeopardizing Reclamation's ability to carry out its mission, because it is tied to an office whose annual budget is currently \$59 million. (A one-year delay at which point all withheld funds are lost translates to a reduction of less than 2% in that office's budget).
- 5) If Reclamation or CEQ believes other accountability and enforcement mechanisms are equally effective and more reasonable, we ask Reclamation to provide those suggestions that would ensure timely completion of the long-delayed feasibility studies.

#### **Operations**

If we are trying to find ways to minimize water supply losses while fully maintaining the protections for the Delta smelt, one good way to do so is to focus on times when there are turbid waters near the pumps during the period from December to March. If the agencies can identify whether or not smelt are present in significant numbers near the pumps during these times, the agencies can ratchet down pumping when the smelt are present and allow greater pumping to continue when the smelt are not present. Isn't this a way for both the smelt and water users to benefit?

Follow-up questions related to this idea: Interior's comments state that "The daily real-time smelt monitoring requirements, while they could reduce smelt salvage, would likely result in large amounts of smelt take." Two questions about this:

a) Is there a way to do monitoring that minimizes take from monitoring?

b) If you were conducting frequent but not daily monitoring during high turbidity periods from December to March, what is the frequency of monitoring that you believe would minimize combined take from salvage and monitoring?

#### **Questions on timelines**

The agency comments state that "A number of the timelines, and subsequent NEPA review, in the draft legislation are not realistically achievable." Can you specify which deadlines are most difficult for you to meet, and suggest modified deadlines that recognize that tight timeframes are needed in an emergency context where action is needed quickly?

Can CEQ suggest areas of our proposal to which 40 C.F.R. 1506.11 can apply? Isn't there good reason to apply alternative arrangements to projects that are environmentally beneficial and undertaken because they are environmentally beneficial, such as invasive species reduction efforts? Don't we want to focus limited resources on getting this work done rather than on lengthy studies?

Besides the project management measures (such as concurrent reviews, early coordination, designation of lead agency, etc.) and the accountability provisions, what measures would CEQ suggest to speed up current processes?

We would also be happy to discuss any points the BOR/CEQ policy team wants to raise.

From: Watts, John (Feinstein)

Sent: Monday, August 18, 2014 6:29 AM

To: Thomas Birmingham; Roger K. Patterson (rpatterson@mwdh2o.com) (rpatterson@mwdh2o.com);

Bernhardt, David L.; 'Burman, Brenda W'

**Subject:** Status of questions for Interior/Commerce legal teams

I told CEQ that I have drafted some questions for the Interior/Commerce legal teams but want to work on them further before sending them. I told them that I do not expect to send these questions until later today or tomorrow.

From: Watts, John (Feinstein)

**Sent:** Tuesday, August 19, 2014 8:58 AM

To: Fullerton, David K (dfullerton@mwdh2o.com); Brenda W Burman

CC: Thomas Birmingham; Roger K. Patterson (rpatterson@mwdh2o.com) (rpatterson@mwdh2o.com);

Bernhardt, David L.

Subject: Science question on smelt raised by Interior comments

Attachments: FINAL Feinstein Drought Legislatation Combined Agency Feedback 08 15 2014.pdf

On page 3 of the attached confidential comments, Interior states that "The daily real-time smelt monitoring requirements, while they could reduce smelt salvage, would likely result in large amounts of smelt take. USFWS should be able to exercise its discretion to conduct monitoring in a way that balances the risk of salvage take against the risk of smelt take resulting from monitoring."

How would you respond to these comments?

Are there ways to conduct monitoring that reduce the amount of smelt take?

Please do not forward the attached comments. Thanks.

### **Comments on Draft California Drought Legislation**

As requested by Sen. Feinstein and Sen. Boxer

Note: The text that was provided for review is incomplete, with potentially critical gaps and placeholders. These comments address only what was provided for review on July 29, 2014, and primarily address new/additional provisions not previously reviewed.

These comments incorporate feedback and analysis by the Department of the Interior (DOI) and the National Oceanic and Atmospheric Administration (NOAA).

### **Topline:**

- The draft legislation directs Federal agency actions and restricts agency discretion in conducting certain activities, which has the potential to:
  - o Limit the ability of an agency to use the best methods and/or science to address evolving issues by focusing on a particular approach;
  - o Cause unintended consequences contrary to the intended goals of the legislation;
  - o Provide benefits to specific stakeholders and interest groups to the detriment of others and/or the environment; and
  - Cause conflict and inconsistency between this draft legislation and other laws and agency regulations.
- The draft legislation directs new and expanded agency activities without providing funding/appropriations, which will strain the fiscal resources of the agencies and potentially impact other high priority activities. There are a number of provisions in the draft bill that are technically or scientifically very difficult to implement, as they require a level of detail and precision that outstrip existing data.
- The determination on the appropriate use of alternative arrangements to address emergencies [ex. Rim Fire] is made by CEQ and CEQ has not determined their use is appropriate when dealing with long standing issues. If enacted, this sets a bad precedent that could have significant ramifications in the future as others may seek to emulate this model. The focus is, and should remain, on appropriately applying NEPA in federal decisionmaking.
- A number of the timelines, and subsequent NEPA review, in the draft legislation are not realistically achievable.
- The requirement to apply the ESA "jeopardy" legal standard to each element of these operating criteria parses or segments the jeopardy analysis into very small units of actions and effects which is inconsistent with section 7 of the ESA and technically infeasible.
- This legislation would significantly alter some of the fundamental assumptions regarding project operations that are embedded in the analyses for BDCP and other actions being studied for potential implementation. This may cause many of these ongoing efforts to change or alter analyses which can cause significant delay.

- Activities mandated in the draft legislation will redirect agency focus and personnel
  resources away from other agency and Administration priorities such as the Bay-Delta
  Conservation Plan (BDCP), Remanded Biological Opinions (Remand), and related
  Section 7 consultations, and cause significant delays to those activities. The activities in
  the draft legislation may also impact agency focus on critical and real-time evolving
  water management needs to address the ongoing drought.
- The legislation, if enacted, would almost certainly result in a new round of aggressive litigation from disaffected water contractors or the NGO community that will swamp orderly implementation.
- Proposed changes to Reclamation Safety of Dams Act. The Administration continues to analyze this provision and will follow-up shortly with additional feedback.

### **General Comments from DOI:**

- The draft legislation prescribes what information and data can be used in an Endangered Species Act (ESA) Section 7 consultation which is potentially inconsistent with the ESA's mandate to use the best available scientific information.
  - The draft legislation includes extensive direction to the US Fish and Wildlife Service (USFWS) for what information on Delta smelt should be used in Section 7 consultations. The USFWS and NOAA's National Marine Fisheries Service (NMFS) (collectively the Services) have detailed regulations on ESA Section 7 consultations. These regulations specify that the Services should use best available scientific and commercial information when conducting Section 7 consultations. The legislation could be counter to our Section 7 regulations. Accordingly, it would establish an adverse precedent for the USFWS using the best available information, which is the ESA statutory standard, in its consultations on complex and potentially controversial activities that affect listed species.
- By establishing deadlines for consultations between Federal agencies, the draft potentially creates a conflict with the requirements of Section 7.
  - The draft legislation would require the USFWS to revise the incidental take statement in the 2008 Biological Opinion by October 1, 2015. Projecting incidental take is already one of the tasks that will be required to permit the BDCP, complete the Remand, and complete related Section 7 consultations. The imposition of an arbitrary deadline undermines USFWS's ability to efficiently work with other action agencies and may adversely affect consultation schedules.
- Specific monitoring requirements for information collection will limit flexibility in the future.
  - o There is great value in supplemental monitoring for Delta smelt, including "early warning" trawling for Delta smelt. There are also likely important weaknesses in the long-term monitoring programs for this species, and we have taken the lead in investigating better approaches. However, monitoring requirements need to be

based on up-to-date science and careful consideration of the management questions that need to be addressed. Rather than recognizing this, the draft legislation prescribes when, where, and what type of monitoring should be conducted for Delta smelt. This prescriptive approach limits flexibility and potentially commits crucial resources to activities that are neither efficient nor appropriate.

- The daily real-time smelt monitoring requirements, while they could reduce smelt salvage, would likely result in large amounts of smelt take. USFWS should be able to exercise its discretion to conduct monitoring in a way that balances the risk of salvage take against the risk of smelt take resulting from monitoring.
- Interior is currently fully engaged in working to complete the BDCP, working on the remanded 2008 Biological Opinion, and will work on the Section 7 consultations needed to permit the BDCP. Dedicating personnel resources to the efforts described in this draft legislation would require Interior to re-task staff currently working on BDCP-related activities and lengthen the timeline for getting to decisions on all of those items. This statement is particularly applicable to the activities in the "Delta Smelt Management", "Salmonid Management", and "Operational Flexibility/Drought Relief" sections of the draft legislation.
- Overall the draft legislation provides some levels of specificity on certain activities, but not enough to operate as a new set of "rules" for how to consult or operate; which can lead to potential conflict with consultation regulations.
  - This sets the stage for litigation, as it provides fodder for lawsuits for not following the consultation regulations or, if the agencies follow the consultation regulations, they could be sued for not following the legislative language.
- No appropriations or funding are provided to undertake the activities specified in the draft legislation. Many sections discuss activities with potential for high cost, and the costs may be reimbursable to the CVP contractors.

#### **General Comments from NOAA:**

- The text of the section entitled "Process for Ensuring Salmonid Management is Responsive to New Science" would require NOAA to compare the effects of export restrictions on survival of affected listed species to contributions to survival from a "broad range of other management measures." The "broad range" evokes the "range of alternatives" requirement under the National Environmental Policy Act (NEPA requires only a "reasonable range") and invites litigation of how broad is broad enough.
- The legislation would also require "a showing" that any restriction on OMR flows "is necessary to avoid jeopardy," or to demonstrate that "minor benefits" can be more effectively achieved through "any of a range of alternative management measures". This appears to require a precise determination that a single measure is necessary to avoid jeopardy, where the ESA requires that the jeopardy determination apply to the entire suite of recommendations as a whole, which in the case of this BiOp encompasses 72 measures. The breadth of the scope of comparison to "any range of alternatives" demonstrates the litigation risks mentioned above.

- A third lack of clarity that increases risk of litigation is the requirement to conduct comparative jeopardy analyses of the existing RPA, which includes D-1641 operations required by state law in the baseline, to project operations governed by D-1641 alone. A legislative requirement to conduct a jeopardy analysis on D-1641, which was promulgated in 2000, severely increases the complexity in drawing a proper baseline, which has been contested in the current litigation.
- The section on "Scientific Studies in 2015" calls for implementation of a trap and haul pilot program for juvenile salmon to increase their survivals through the Delta, with permits to be issued by March, 2015. There are significant feasibility and cost questions with regard to catching hundreds of juveniles needed to study the effectiveness of this project and the timelines are not achievable. In addition, study results will not be determined until the juveniles return as adults, no earlier than 2018.
- NOAA also has concerns with the "Temporary Operational Flexibility for First Few Storms of 2014-2015 Water Year" section. Specifically, with an operation at -7500cfs, this could have significant negative effects to endangered winter run salmon that enter the Delta on those first pulses and rear in the Delta through March. As long the current BiOp measures remain in place beginning January 1, we would be less concerned and would want to focus implementation of this effort pre-January through the existing Real Time Drought Operations team.

### **General Comments from CEQ:**

• <u>Water Storage: Section</u> \_\_\_\_. ACCOUNTABILITY FOR COMPLETING CALFED STORAGE FEASIBILITY STUDIES.

This provision imposes financial penalties by withholding funds for failing to meet schedules set under another provision (subsection (c) of the section entitled **Other Storage Feasibility Studies** in the current draft).

The potential release of withheld funds could mitigate the ultimate impact; however, that is driven by an imposed timeline to conclude the environmental review. There is no provision for modifying the schedule, and extending deadlines, when warranted. We have strong concerns that these timelines are tight and may be difficult to satisfy and that a potential rush to meet deadlines and avoid penalties may prevent meaningful and substantive review of environmental issues. For example, these deadlines may conflict with periods of extended public comment or initiating supplemental environmental review, if necessary. We believe rushed decisions lead to substantive vulnerabilities, thereby making an agency open to potential litigation.

• Section \_\_\_\_. OTHER STORAGE FEASIBILITY STUDIES. Note: subsection (h) makes this section applicable to remaining work on CALFED Storage Studies- that could impact the ability of those to meet those timelines and trigger the financial penalties.

We can support the timely designation of lead agencies in subsection (a) and cooperating agencies as set out in subsection (b). However, we are concerned that the subsection (b) provision regarding intent to submit comments can be read to exclude agencies with jurisdiction by law or special expertise from being engaged in schedule development (under (c)) and any determination regarding sufficiency of the NEPA review (under (d)(1)). This limits the option for agencies to decline cooperating agency status based on a lack of resources or competing priorities yet still fulfill their legal responsibilities. We can support lead agencies engaging relevant parties early in the process and setting schedules as set out in subsection (c). We also support establishing accountability; however, the level of effort can detract from available resources and thereby add potential for further delay. The accountability through semi-annual reporting to Senate EPW and House NR raises this concern. We also suggest that the drafter consider whether there are any non-Federal approvals that may delay the environmental review process.

Subsection (d) on environmental reviews has provisions we can support: preparing a single environmental review document when sufficient to comply with law and regulation (the need to allow additional work and potentially a second document for 404 permits is thereby covered); timelines that can be modified for good cause; making information available to all stakeholders; and raising issues of concern as early as possible. We note that the currently unspecified (blank) public comment periods should be no less than required under CEQ NEPA regulations as potentially extended by agency NEPA implementing procedures.

We can support subsection (e) provisions on concurrent review actions. Note that the call for "creation of a list of all data that is needed to carry out an environmental review process" should not be read as requiring a complete listing of all possible data – such a task will not be cost effective because of changing science and data as well as the fact that the level and type of information will vary by the proposed storage facility and the potential intensity of its effects.

We can support the subsection (e) provisions on administrative record and data management.

We are very concerned that the subsection (f) provisions on non-Federal project sponsors as lead or co-lead agencies will be difficult to enforce and the perception and risk of undue influence over the process outweigh potential benefits.

### **General Comments from OMB:**

• We have concerns with and oppose the section on "Prioritizing State Revolving Funds During Droughts". This section which would require California to prioritize State Revolving Fund (SRF) money to projects that provide additional water supplies. This would disrupt normal state SRF priority-setting, and may result in projects with greater public health and environmental benefits not being funded.

From: Marklund, Chris

**Sent:** Tuesday, August 19, 2014 9:35 AM

**To:** 'tbirmingham@westlandswater.org'; 'dbernhardt@bhfs.com'

**CC:** Lombardi, Kyle

**Subject:** Fw:

Attachments: 8.15.2014 McCarthy Water Proposal.pdf

Tom and David,

Attached please find a summary discussion draft of a water proposal put together by Leader McCarthy's office. As with other water proposals currently out there, please do not share this document outside of this email string.

Mr. McCarthy's office is looking for comments on the proposal in terms of its efficacy at delivering water to the SJV as well as any challenges or problems it may present.

I am currently traveling through extremely rural and rugged terrain so my connectivity has been extremely infrequent and unreliable and will continue to be as such until next Tuesday.

To facilitate getting Mr. McCarthy's office the input they need from our water users, please send any comments or questions about the proposal to both myself and Kyle Lombardi with Mr. McCarthy's office (CC'd).

Thank you.

#### Chris

From: Hockenbury, Charles

**Sent**: Tuesday, August 19, 2014 11:57 AM

To: Marklund, Chris

Subject:

#### CONFIDENTIAL

#### **Biological Opinion Reconsultation**

#### Delta Smelt & Chinook Salmon Biological Opinions Reconsultation

- By no later than October 1, 2019, the Interior and Commerce Secretaries shall conduct a joint reconsultation for both delta smelt and Chinook salmon and issue a new joint biological opinion for both species.
- The new biological opinion shall be based on best science and shall minimize water supply reductions to the Central Valley Project and State Water Project.
  - Reference CA statute on co-equal goals specifically regarding water supply reliability.

### Best Science for Biological Opinion Reconsultation

- Prior to reconsulting the new joint biological opinion, the Secretaries are required to do the following items (not an exhaustive list):
  - o Delta smelt distribution study;
  - o Real time monitoring of smelt, salmon, and smolt;
  - Develop and study alternative management measures that increase smelt and salmonid survival rates (i.e. turbidity, predation, temporary barriers, trapping & relocating entrained juvenile salmonids, etc.); and
  - Create survival estimate ranges for fish resulting from each alternate management measure.
- In developing and conducting models, tests, data collection projects, etc., the Secretaries shall consult with Central Valley Project and State Water Project contractors, as well as accept all relevant studies and analysis conducted by these individuals.

### Applying Best Science to the Reconsultation of the Biological Opinion

• In developing the new biological opinion, the Secretaries shall take into account the survival estimate ranges, alternative management measures, and real time fish monitoring to develop a biological opinion that maximizes water supply available to CVP and SWP water contractors while ensuring adequate protections for fish.

### Pumping Levels in New Biological Opinion

- The Secretaries shall develop a new joint biological opinion that sets the Old and Middle River flow (OMR) criterion at no more positive than -5,000 cfs annually.
- Should Secretaries determine that OMR criterion should be more restrictive (i.e. more positive) than -5,000 cfs in developing the new joint biological opinion, before finalizing the the opinion, Secretaries shall issue a determination that explains:
  - What data they examined and the connection between those data and the decision made:
  - Why the OMR criterion must be more positive than -5,000 cfs, is necessary to avoid jeopardy; and
  - What the adverse consequences are of implementing alternative management measures and justify why implementing alternative management measures exceed the

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adverse consequences of setting the OMR criterion to be more positive than -5,000 cfs.

- Should the Secretaries finalize the new joint biological opinion with OMR ranges more restrictive that established in the 2008 delta smelt and the 2009 salmon biological opinions, the Secretaries shall make a determination of how much water is needed to reduce take of delta smelt and salmonids to avoid jeopardy.
  - o Based on that determination, the Secretaries shall be:
    - Prohibited from setting the OMR criterion more positive than -5,000 cfs; and
    - Authorized to acquire water from willing sellers to satisfy smelt and salmonid needs without cost the CVP or SWP contractors.
- These determinations shall be considered a final agency action.

### Co-Permittee Language

 For the purposes of implementing this subpart, the Bureau of Reclamation, NFMS, and FWS shall afford CVP and SWP water contractors the rights and responsibilities accorded to applicants under the Endangered Species Act, its implementing regulations, and Federal agency guidance.

#### **Interim CVP and SWP Operations**

#### **Interim Project Flow Levels**

- From the date of enactment of this Act until the issuance of a new combined delta smelt and Chinook salmon biological opinion, the Interior and Commerce Secretaries shall operate the projects to maintain a flow of -5,000 CFS, consistent with the existing pumping range set by the 2008 and 2009 biological opinions.
- The Secretaries shall conduct real time monitoring of smelt, salmon, and smolt take. Should the take levels approach or meet incidental take limits established by the incidental take statements in 2008 or 2009 biological opinions, the Secretaries must consider other alternative management measures in the RPAs prior to considering reducing OMR flows below (more positive) than -5,000 CFS. The Secretaries must publish data and a justification for this action within 72 hours.
- After reducing flows, the Secretaries shall conduct daily monitoring, publish their findings daily, and restore flows at OMR to -5,000 CFS within one week unless they make a finding that doing so would cause jeopardy.
- These weekly determinations shall be considered final agency action.

## Temporary Operational Flexibility

• From the date of enactment of this Act until the issuance of a new combined delta smelt and Chinook salmon biological opinion, beginning on December 1 and until the CA Department of Water Resources determines that the daily average river flow of the Sacramento River is at or above 17k/af CSF as measured at the Sacramento River at Freeport gage for a period of not less than 28 consecutive days (one lunar cycle) after October 1, the Secretaries are authorized to operate CVP and SWP project in fashion that results in OMR flows of up to -7,500 CFS notwithstanding the current biological opinions except as provided below.

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• The Secretaries shall conduct real time monitoring of smelt, salmon, and smolt kills. Should the take levels approach or meet incidental take limits established by the 2008 or 2009 biological opinions, the Secretaries shall return OMR flows to -5,000 CFS.

### **Emergency Consideration of Water Contractor Requests**

- The Secretaries shall prioritize requests from CVP or SWP contractors to implement this subpart.
- The Secretaries shall make determination within 48 hours on the request to increase flows.
- Should the Secretaries reject the request to increase OMR flows above (more negative) than -5,000 CFS, the Secretaries shall make public the data and analysis used to making this determination, as well as a justification for said determination, publically available within 72 hours.
- This determination shall be considered final agency action.

### Other Items

• Keep the Feinstein language on updating incidental take levels.

### Items Still Being Developed

- Default assumptions for remaining RPA (e.g. San Joaquin River and Sacramento inflow/export ratio)
- SWP protection and benefit language:
  - o Implementation of this bill is contingent on the California Fish and Wildlife Service certifying to the California Department of Water Resources that the SWP-CVP consistency/coordinated operating agreement shall not be revoked.
  - Should the California Fish and Wildlife Service revoke its consistency/coordination certification at any time, the [Federal Agency] shall be prohibited from releasing Federal funds to the State of California.
- Increase storage benefit for SWP
  - If any California funds are used for improvements to CVP storage facilities, the Director of Reclamation shall ensure that the State Water Project receives a portion of water resulting from said improvements equal to the proportion of California funds to federal funds.
  - The Director of Reclamation is authorized to enter into negotiations with SWP contractors, on a voluntary basis, on SWP contractor providing funds for improvements to CVP facilities. Furthermore, the Director shall ensure that the SWP receive additional water from said improved facilities proportionate to their funding commitment.
  - o If Federal funds are used for improvements to CVP storage facilities, the Director shall ensure that the State Water Project receives a portion of water resulting from said improvements.
- Groundwater banking program TBD
- Revise water transfer limitations
  - The Secretaries of Interior and Commerce are authorized to conduct water transfers starting in April through November.

From: Lombardi, Kyle

**Sent:** Tuesday, August 19, 2014 10:15 AM

To: Tom Birmingham; Marklund, Chris; dbernhardt@bhfs.com

Subject: RE: RE:

Hi Tom - With regard to your comment about the new biological opinion, you did see that in the proposal there is a limitation on reducing pumping below the 2008/2009 bi-ops and an authorization for FWS/NFMS/BoR to go out and purchase water from willing sellers to meet fish needs if they ultimately think the OMR ranges need to be reduced? Also, did you also see that we seek to make you and your water contractor colleagues co-permittees with DWR on the reconsult? I think that should address the policy concerns you mention about the reconsultation generally. Kyle

Kyle Lombardi Rep. Kevin McCarthy 202-225-2915

**From:** Tom Birmingham [mailto:tbirmingham@westlandswater.org]

**Sent:** Tuesday, August 19, 2014 1:01 PM **To:** Marklund, Chris; dbernhardt@bhfs.com

**Cc:** Lombardi, Kyle **Subject:** RE:

Chris,

Thank you for sending this proposal. Many of the concepts suggested in this proposal are ones that Westlands has advocated in the past. However, it is my understanding that in developing the language proposed to the House, John Watts made many of these same suggestions to Senator Feinstein, and Senator Feinstein rejected them. My fear is that if these proposals cannot get support of the Senators, it will put at risk the gains we have made to this point in discussions with the Watts. In fact, I understand that Watts has already accepted some of the amendments suggested by House staff members.

One element of the proposal that is of particular concern is the requirement that the agencies prepare new biological opinions within 5 years. Regardless of the intent, the new biological opinion will be drafted by agency biologists that do not like the projects. These biologists will always find new ways to take water from the projects, and unless the legislations places absolute restrictions on what can go into a new biological opinion, there is a great potential that the new opinion will eliminate any water supply benefits we can achieve through the language being developed by Watts and House staff members. I do not believe that the Senate would accept the absolute limits necessary to avoid this risk.

Tom

**From:** Marklund, Chris [mailto:Chris.Marklund@mail.house.gov]

**Sent:** Tuesday, August 19, 2014 9:35 AM

**To:** 'tbirmingham@westlandswater.org'; 'dbernhardt@bhfs.com'

**Cc:** Lombardi, Kyle **Subject:** Fw:

Tom and David,

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Thank you.

Chris

**From**: Hockenbury, Charles

Sent: Tuesday, August 19, 2014 11:57 AM

To: Marklund, Chris

Subject:

From: Burman, Brenda W

**Sent:** Tuesday, August 19, 2014 10:34 AM **To:** Watts, John (Feinstein); Fullerton, David K

**CC:** Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. **Subject:** RE: Science question on smelt raised by Interior comments

John, I asked Dave Fullerton to respond to the comment and also about whether the trawls could start and stop depending on conditions. His comments are:

"Yes, certainly. If they find smelt for a day or two, they can stop. This is a ridiculous complaint. The amount of water sampled by the Kodiak is miniscule compared to what enters the export pumps. And if this is such an issue, why did they run the Jersey Trawl all winter long? Unlike the Jersey Trawl, the fish they catch in the proposed trawl are very likely to be entrained so the sampling actually should lead to decreases in overall take. If sampling take is an issue, why do they continue to sample so many stations with the FMWT and SKT routinely, not to mention the Bay Study, the STN, the 20mm survey, the larval survey, the Beach Seine, and special studies.. This is just the usual comment that the bio-priesthood knows best and should be left alone."

**From:** Watts, John (Feinstein) [mailto:John\_Watts@feinstein.senate.gov]

**Sent:** Tuesday, August 19, 2014 8:58 AM **To:** Fullerton, David K; Burman, Brenda W

**Cc:** Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. **Subject:** Science question on smelt raised by Interior comments

On page 3 of the attached confidential comments, Interior states that "The daily real-time smelt monitoring requirements, while they could reduce smelt salvage, would likely result in large amounts of smelt take. USFWS should be able to exercise its discretion to conduct monitoring in a way that balances the risk of salvage take against the risk of smelt take resulting from monitoring."

How would you respond to these comments?

Are there ways to conduct monitoring that reduce the amount of smelt take?

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From: Watts, John (Feinstein)

**Sent:** Tuesday, August 19, 2014 10:37 AM **To:** 'Burman,Brenda W'; Fullerton,David K

**CC:** Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. **Subject:** RE: Science question on smelt raised by Interior comments

Brenda, Thanks.

Can you revise these comments into a form that I can transmit to Interior (perhaps without the bio-priesthood reference, although I did find that enjoyable)?

From: Burman, Brenda W [mailto:BBurman@mwdh2o.com]

**Sent:** Tuesday, August 19, 2014 1:34 PM **To:** Watts, John (Feinstein); Fullerton, David K

**Cc:** Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. **Subject:** RE: Science question on smelt raised by Interior comments

John, I asked Dave Fullerton to respond to the comment and also about whether the trawls could start and stop depending on conditions. His comments are:

"Yes, certainly. If they find smelt for a day or two, they can stop. This is a ridiculous complaint. The amount of water sampled by the Kodiak is miniscule compared to what enters the export pumps. And if this is such an issue, why did they run the Jersey Trawl all winter long? Unlike the Jersey Trawl, the fish they catch in the proposed trawl are very likely to be entrained so the sampling actually should lead to decreases in overall take. If sampling take is an issue, why do they continue to sample so many stations with the FMWT and SKT routinely, not to mention the Bay Study, the STN, the 20mm survey, the larval survey, the Beach Seine, and special studies.. This is just the usual comment that the bio-priesthood knows best and should be left alone."

From: Watts, John (Feinstein) [mailto:John Watts@feinstein.senate.gov]

**Sent:** Tuesday, August 19, 2014 8:58 AM **To:** Fullerton, David K; Burman, Brenda W

**Cc:** Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. **Subject:** Science question on smelt raised by Interior comments

On page 3 of the attached confidential comments, Interior states that "The daily real-time smelt monitoring requirements, while they could reduce smelt salvage, would likely result in large amounts of smelt take. USFWS should be able to exercise its discretion to conduct monitoring in a way that balances the risk of salvage take against the risk of smelt take resulting from monitoring."

How would you respond to these comments?

Are there ways to conduct monitoring that reduce the amount of smelt take?

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From: Tom Birmingham

**Sent:** Tuesday, August 19, 2014 11:05 AM

To: 'Lombardi, Kyle'; 'Marklund, Chris'; dbernhardt@bhfs.com

**Subject:** RE: RE:

Kyle,

I did see those provisions. My point is that these guys, the staff biologists, are ingenious at finding ways to screw the projects. If the House and the Senate find acceptable languageconcerning how the existing biological opinions will be applied to the projects, which also provides water supply benefits, what do we accomplish by requiring that the agencies reconsult?

Please do not misinterpret my comments as being critical of your proposal from a technical perspective. As I said, Westlands has previously advocated for many of the same things. My only question is whether your proposal can be enacted over Senator Boxer's strong objection.

Tom

From: Lombardi, Kyle [mailto:Kyle.Lombardi@mail.house.gov]

**Sent:** Tuesday, August 19, 2014 10:15 AM

**To:** Tom Birmingham; Marklund, Chris; dbernhardt@bhfs.com

**Subject:** RE: RE:

Hi Tom - With regard to your comment about the new biological opinion, you did see that in the proposal there is a limitation on reducing pumping below the 2008/2009 bi-ops and an authorization for FWS/NFMS/BoR to go out and purchase water from willing sellers to meet fish needs if they ultimately think the OMR ranges need to be reduced? Also, did you also see that we seek to make you and your water contractor colleagues co-permittees with DWR on the reconsult? I think that should address the policy concerns you mention about the reconsultation generally. Kyle

Kyle Lombardi Rep. Kevin McCarthy 202-225-2915

**From:** Tom Birmingham [mailto:tbirmingham@westlandswater.org]

**Sent:** Tuesday, August 19, 2014 1:01 PM **To:** Marklund, Chris; <a href="mailto:dbernhardt@bhfs.com">dbernhardt@bhfs.com</a>

**Cc:** Lombardi, Kyle **Subject:** RE:

Chris,

Thank you for sending this proposal. Many of the concepts suggested in this proposal are ones that Westlands has advocated in the past. However, it is my understanding that in developing the language proposed to the House, John Watts made many of these same suggestions to Senator Feinstein, and Senator Feinstein rejected them. My fear is that if these proposals cannot get support of the Senators, it will put at risk the gains we have made to this point in discussions with the Watts. In fact, I understand that Watts has already accepted some of the amendments suggested by House staff members.

One element of the proposal that is of particular concern is the requirement that the agencies prepare new biological opinions within 5 years. Regardless of the intent, the new biological opinion will be drafted by agency biologists that do

not like the projects. These biologists will always find new ways to take water from the projects, and unless the legislations places absolute restrictions on what can go into a new biological opinion, there is a great potential that the new opinion will eliminate any water supply benefits we can achieve through the language being developed by Watts and House staff members. I do not believe that the Senate would accept the absolute limits necessary to avoid this risk.

Tom

From: Marklund, Chris [mailto:Chris.Marklund@mail.house.gov]

**Sent:** Tuesday, August 19, 2014 9:35 AM

**To:** 'tbirmingham@westlandswater.org'; 'dbernhardt@bhfs.com'

**Cc:** Lombardi, Kyle **Subject:** Fw:

Tom and David,

Attached please find a summary discussion draft of a water proposal put together by Leader McCarthy's office. As with other water proposals currently out there, please do not share this document outside of this email string.

Mr. McCarthy's office is looking for comments on the proposal in terms of its efficacy at delivering water to the SJV as well as any challenges or problems it may present.

I am currently traveling through extremely rural and rugged terrain so my connectivity has been extremely infrequent and unreliable and will continue to be as such until next Tuesday.

To facilitate getting Mr. McCarthy's office the input they need from our water users, please send any comments or questions about the proposal to both myself and Kyle Lombardi with Mr. McCarthy's office (CC'd).

Thank you.

Chris

From: Hockenbury, Charles

**Sent**: Tuesday, August 19, 2014 11:57 AM

**To**: Marklund, Chris

Subject:

From: Burman, Brenda W

**Sent:** Tuesday, August 19, 2014 11:05 AM **To:** Watts, John (Feinstein); Fullerton, David K

**CC:** Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. **Subject:** RE: Science question on smelt raised by Interior comments

#### Federal Comment:

"The daily real-time smelt monitoring requirements, while they could reduce smelt salvage, would likely result in large amounts of smelt take. USFWS should be able to exercise its discretion to conduct monitoring in a way that balances the risk of salvage take against the risk of smelt take resulting from monitoring."

#### Response:

The legislative language calls for real-time monitoring when high turbidity has entered the south delta and an increased chance of high salvage is possible. The trawling is to determine if large numbers of smelt are near the project pumps. For that reason, the monitoring would only take place in winter and spring during high turbidity and could be managed flexibly so that trawling was started and stopped if no fish were found or if many fish were found. The amount of water that would be sampled by the Kodiak trawl in this case is miniscule compared to what enters the export pumps. As an example, in 2014 FWS ran the Jersey Trawl for the entire winter. Unlike with the Jersey Trawl, this real-time monitoring would not operate continuously. Furthermore, the legislation calls for real-time monitoring closer to the pumps. For that reason, the fish caught by the proposed trawls are already very likely to be entrained so the sampling actually should lead to decreased overall take compared to last year.

Fish sampling by the agencies is a continuous routine process including the FMWT and SKT, not to mention the Bay Study, the STN, the 20mm survey, the larval survey, the Beach Seine, and special studies. If sampling take is an issue, why are so many stations sampled year-round? The legislation proposes a limited, focused and directed trawling to inform in real-time project operations.

From: Watts, John (Feinstein) [mailto:John Watts@feinstein.senate.gov]

**Sent:** Tuesday, August 19, 2014 8:58 AM **To:** Fullerton, David K; Burman, Brenda W

**Cc:** Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. **Subject:** Science question on smelt raised by Interior comments

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From: Lombardi, Kyle

Sent: Tuesday, August 19, 2014 11:11 AM

**To:** 'tbirmingham@westlandswater.org'; Marklund, Chris; 'dbernhardt@bhfs.com'

Subject: Re: RE:

Thanks for the comments Tom and I didn't take your comment as critical. You know this stuff inside out and I appreciate your input. I understand your concern about what our senators will accept but just as concerning is what the House can accept to get us water. Let think this over a bit and get back to you.

**From**: Tom Birmingham [mailto:tbirmingham@westlandswater.org]

**Sent**: Tuesday, August 19, 2014 02:04 PM

To: Lombardi, Kyle; Marklund, Chris; dbernhardt@bhfs.com <dbernhardt@bhfs.com>

Subject: RE: RE:

Kyle,

I did see those provisions. My point is that these guys, the staff biologists, are ingenious at finding ways to screw the projects. If the House and the Senate find acceptable languageconcerning how the existing biological opinions will be applied to the projects, which also provides water supply benefits, what do we accomplish by requiring that the agencies reconsult?

Please do not misinterpret my comments as being critical of your proposal from a technical perspective. As I said, Westlands has previously advocated for many of the same things. My only question is whether your proposal can be enacted over Senator Boxer's strong objection.

Tom

From: Lombardi, Kyle [mailto:Kyle.Lombardi@mail.house.gov]

**Sent:** Tuesday, August 19, 2014 10:15 AM

To: Tom Birmingham; Marklund, Chris; dbernhardt@bhfs.com

Subject: RE: RE:

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Kyle Lombardi Rep. Kevin McCarthy 202-225-2915

**From:** Tom Birmingham [mailto:tbirmingham@westlandswater.org]

**Sent:** Tuesday, August 19, 2014 1:01 PM **To:** Marklund, Chris; <a href="mailto:dbernhardt@bhfs.com">dbernhardt@bhfs.com</a>

**Cc:** Lombardi, Kyle **Subject:** RE:

Chris,

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One element of the proposal that is of particular concern is the requirement that the agencies prepare new biological opinions within 5 years. Regardless of the intent, the new biological opinion will be drafted by agency biologists that do not like the projects. These biologists will always find new ways to take water from the projects, and unless the legislations places absolute restrictions on what can go into a new biological opinion, there is a great potential that the new opinion will eliminate any water supply benefits we can achieve through the language being developed by Watts and House staff members. I do not believe that the Senate would accept the absolute limits necessary to avoid this risk.

Tom

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**Sent:** Tuesday, August 19, 2014 9:35 AM

**To:** 'tbirmingham@westlandswater.org'; 'dbernhardt@bhfs.com'

**Cc:** Lombardi, Kyle **Subject:** Fw:

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To facilitate getting Mr. McCarthy's office the input they need from our water users, please send any comments or questions about the proposal to both myself and Kyle Lombardi with Mr. McCarthy's office (CC'd).

Thank you.

Chris

From: Hockenbury, Charles

**Sent**: Tuesday, August 19, 2014 11:57 AM

To: Marklund, Chris

Subject:

From: Fullerton, David K

**Sent:** Tuesday, August 19, 2014 11:23 AM **To:** Burman,Brenda W; Watts, John (Feinstein)

**CC:** Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. **Subject:** RE: Science question on smelt raised by Interior comments

On reflection I would probably delete the last two sentences of the first paragraph, starting "Furthermore, the legislation....

From: Burman, Brenda W

Sent: Tuesday, August 19, 2014 11:05 AM To: Watts, John (Feinstein); Fullerton, David K

Cc: Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. Subject: RE: Science question on smelt raised by Interior comments

#### Federal Comment:

"The daily real-time smelt monitoring requirements, while they could reduce smelt salvage, would likely result in large amounts of smelt take. USFWS should be able to exercise its discretion to conduct monitoring in a way that balances the risk of salvage take against the risk of smelt take resulting from monitoring."

#### Response:

The legislative language calls for real-time monitoring when high turbidity has entered the south delta and an increased chance of high salvage is possible. The trawling is to determine if large numbers of smelt are near the project pumps. For that reason, the monitoring would only take place in winter and spring during high turbidity and could be managed flexibly so that trawling was started and stopped if no fish were found or if many fish were found. The amount of water that would be sampled by the Kodiak trawl in this case is miniscule compared to what enters the export pumps. As an example, in 2014 FWS ran the Jersey Trawl for the entire winter. Unlike with the Jersey Trawl, this real-time monitoring would not operate continuously. Furthermore, the legislation calls for real-time monitoring closer to the pumps. For that reason, the fish caught by the proposed trawls are already very likely to be entrained so the sampling actually should lead to decreased overall take compared to last year.

Fish sampling by the agencies is a continuous routine process including the FMWT and SKT, not to mention the Bay Study, the STN, the 20mm survey, the larval survey, the Beach Seine, and special studies. If sampling take is an issue, why are so many stations sampled year-round? The legislation proposes a limited, focused and directed trawling to inform in real-time project operations.

From: Watts, John (Feinstein) [mailto:John Watts@feinstein.senate.gov]

Sent: Tuesday, August 19, 2014 8:58 AM To: Fullerton, David K; Burman, Brenda W

Cc: Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. Subject: Science question on smelt raised by Interior comments

On page 3 of the attached confidential comments, Interior states that How would you respond to these comments?

Are there ways to conduct monitoring that reduce the amount of smelt take?

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From: Burman, Brenda W

**Sent:** Tuesday, August 19, 2014 11:24 AM **To:** Fullerton, David K; Watts, John (Feinstein)

**CC:** Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. **Subject:** RE: Science question on smelt raised by Interior comments

Thanks, done below

----Original Message-----From: Fullerton, David K

Sent: Tuesday, August 19, 2014 11:23 AM To: Burman,Brenda W; Watts, John (Feinstein)

Cc: Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. Subject: RE: Science question on smelt raised by Interior comments

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From: Burman, Brenda W

Sent: Tuesday, August 19, 2014 11:05 AM To: Watts, John (Feinstein); Fullerton, David K

Cc: Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. Subject: RE: Science question on smelt raised by Interior comments

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From: Watts, John (Feinstein) [mailto:John Watts@feinstein.senate.gov]

Sent: Tuesday, August 19, 2014 8:58 AM To: Fullerton, David K; Burman, Brenda W

Cc: Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. Subject: Science question on smelt raised by Interior comments

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From: Watts, John (Feinstein)

**Sent:** Tuesday, August 19, 2014 12:00 PM **To:** 'Burman,Brenda W'; Fullerton,David K

**CC:** Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. **Subject:** RE: Science question on smelt raised by Interior comments

Thanks, I have sent the revised response to Interior for discussion when we work through policy issues in the proposal with Interior's team.

----Original Message----

From: Burman, Brenda W [mailto:BBurman@mwdh2o.com]

Sent: Tuesday, August 19, 2014 2:24 PM To: Fullerton, David K; Watts, John (Feinstein)

Cc: Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. Subject: RE: Science question on smelt raised by Interior comments

Thanks, done below

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Sent: Tuesday, August 19, 2014 11:23 AM To: Burman,Brenda W; Watts, John (Feinstein)

Cc: Thomas Birmingham; Patterson,Roger K; Bernhardt, David L. Subject: RE: Science question on smelt raised by Interior comments

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From: Burman, Brenda W

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**From:** Tom Birmingham

**Sent:** Thursday, August 21, 2014 10:29 AM

**To:** 'Watts, John (Feinstein)' **CC:** 'Bernhardt, David L.'

Subject: Drafting Service on Judicial Review

John,

As we discussed, the following are two alternatives for the judicial review section:

- (g) JUDICIAL REVIEW. Written determinations by the Secretary under subsection (e) and the calculation of a revised incidental take limit under Section \_\_\_\_ shall constitute final agency action; provided that judicial review of any determination by the Secretary under this Act shall be limited to whether the Secretary's decision was based on a consideration of the relevant factors prescribed by this Act and whether the Secretary proceeded in a manner consistent with this Act.
- (g) JUDICIAL REVIEW. Written determinations by the Secretary under subsection (e) and the calculation of a revised incidental take limit under Section \_\_\_\_ shall constitute final agency action; provided that judicial review of any determination by the Secretary under this Act shall be limited to review under 5 U.S.C. section 706(b)(2)(D).

For your reference, the following is the text of section 706:

To the extent necessary to decision and when presented, the reviewing court shall decide all relevant questions of law, interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of an agency action. The reviewing court shall—

- (1) compel agency action unlawfully withheld or unreasonably delayed; and
- (2) hold unlawful and set aside agency action, findings, and conclusions found to be—
- (A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;
  - (B) contrary to constitutional right, power, privilege, or immunity;
- **(C)** in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;
  - (D) without observance of procedure required by law;
  - **(E)** unsupported by substantial evidence in a case subject to sections <u>556</u> and <u>557</u> of this title or otherwise reviewed on the record of an agency hearing provided by statute; or
- **(F)** unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court.

In making the foregoing determinations, the court shall review the whole record or those parts of it cited by a party, and due account shall be taken of the rule of prejudicial

Tom

From: Watts, John (Feinstein)

**Sent:** Thursday, August 21, 2014 10:38 AM

**To:** 'Tom Birmingham' **CC:** 'Bernhardt, David L.'

Subject: RE: Drafting Service on Judicial Review

I have a technical drafting question. I think we need a broader frame for this language besides "written determinations under section (e) and the calculation of a revised incidental take limit." Without such a broader frame, all the other final agency actions under the act are still subject to full judicial review. Can one of you provide a broader frame for this language, to make it as clear as possible for when I send it to Mike?

**From:** Tom Birmingham [mailto:tbirmingham@westlandswater.org]

Sent: Thursday, August 21, 2014 1:29 PM

**To:** Watts, John (Feinstein) **Cc:** 'Bernhardt, David L.'

**Subject:** Drafting Service on Judicial Review

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  - (B) contrary to constitutional right, power, privilege, or immunity;
- **(C)** in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;
  - (D) without observance of procedure required by law;
  - **(E)** unsupported by substantial evidence in a case subject to sections <u>556</u> and <u>557</u> of this title or otherwise reviewed on the record of an agency hearing provided by statute; or
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In making the foregoing determinations, the court shall review the whole record or those parts of it cited by a party, and due account shall be taken of the rule of prejudicial

Tom

From: Tom Birmingham

**Sent:** Thursday, August 21, 2014 10:42 AM

**To:** 'Watts, John (Feinstein)' **CC:** 'Bernhardt, David L.'

Subject: FW: Drafting Service on Judicial Review

John,

#### How about the following:

- (g) JUDICIAL REVIEW. Written determinations by the Secretary under this Act shall constitute final agency action; provided that judicial review of any determination by the Secretary under this Act shall be limited to whether the Secretary's decision was based on a consideration of the relevant factors prescribed by this Act and whether the Secretary proceeded in a manner consistent with this Act.
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**Sent:** Thursday, August 21, 2014 10:38 AM

**To:** 'Tom Birmingham' **Cc:** 'Bernhardt, David L.'

Subject: RE: Drafting Service on Judicial Review

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As we discussed, the following are two alternatives for the judicial review section:

(g) JUDICIAL REVIEW. Written determinations by the Secretary under subsection (e) and the calculation of a revised incidental take limit under Section \_\_\_\_ shall constitute final agency action; provided that judicial review of any determination by the Secretary under this Act shall be limited to whether the Secretary's decision was based on a consideration of the relevant factors prescribed by this Act and whether the Secretary proceeded in a manner consistent with this Act.

(g) JUDICIAL REVIEW. Written determinations by the Secretary under subsection (e) and the calculation of a revised incidental take limit under Section \_\_\_\_ shall constitute final agency action; provided that judicial review of any determination by the Secretary under this Act shall be limited to review under 5 U.S.C. section 706(b)(2)(D).

For your reference, the following is the text of section 706:

To the extent necessary to decision and when presented, the reviewing court shall decide all relevant questions of law, interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of an agency action. The reviewing court shall—

- (1) compel agency action unlawfully withheld or unreasonably delayed; and
- (2) hold unlawful and set aside agency action, findings, and conclusions found to be—
- (A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;
  - (B) contrary to constitutional right, power, privilege, or immunity;
- **(C)** in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;
  - (D) without observance of procedure required by law;
  - **(E)** unsupported by substantial evidence in a case subject to sections <u>556</u> and <u>557</u> of this title or otherwise reviewed on the record of an agency hearing provided by statute; or
- **(F)** unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court.

In making the foregoing determinations, the court shall review the whole record or those parts of it cited by a party, and due account shall be taken of the rule of prejudicial

Tom

From: Bernhardt, David L.

**Sent:** Friday, August 22, 2014 8:27 AM **To:** Thomas W. (Tom) Birmingham Esq.

Subject: Kiel's direct

Kiel's direct 2022269836

David Bernhardt

STATEMENT OF CONFIDENTIALITY & DISCLAIMER: The information contained in this email message is attorney privileged and confidential, intended only for the use of the individual or entity named above. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution or copy of this email is strictly prohibited. If you have received this email in error, please notify us immediately by calling (303)-223-1300 and delete the message. Thank you.

From: Watts, John (Feinstein)

**Sent:** Friday, August 22, 2014 5:24 PM

**To:** 'Tom Birmingham'; Roger K. Patterson (rpatterson@mwdh2o.com) (rpatterson@mwdh2o.com)

CC: Bernhardt, David L.; 'Burman, Brenda W'

**Subject:** Confidential -- revised draft language in redline showing changes **Attachments:** revised text 082214.docx; judicial review options 8-22-14.docx

Hi all. I am sharing this simultaneously and confidentially with the Administration team, Kiel Weaver, and Senator Boxer's staff. Mike Connor told Senator Feinstein today that his team is working to get us revised language with the Administration's bottomline on Tuesday.

I think you should be mostly familiar with the proposed changes in the redline, but feel free to ping me with any questions.

Have a good weekend. Next week is a key week.

John

1 Title: To provide drought relief in the State of California, and for other purposes.

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Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

#### 6 SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

- (a) Short Title.—This Act may be cited as the "California Drought Relief Act of 2014".
- 8 (b) Table of Contents.—The table of contents of this Act is as follows:
- 9 Sec.1.Short title; table of contents.
- 10 Sec.2.Findings.
- 11 Sec. 23. Definitions.
- 12 TITLE I—ADJUSTING DELTA SMELT MANAGEMENT
- 13 BASED ON INCREASED REAL-TIME MONITORING AND
- 14 UPDATED SCIENCE
- 15 Sec. 101. Findings.
- 16 Sec. 1012. Definitions.
- 17 Sec.1023. Revise incidental take level calculation to reflect new science.
- 18 Sec.1034.Factoring increased real-time monitoring and updated science into delta smelt
- 19 management.
- 20 TITLE II—ENSURING SALMONID MANAGEMENT IS
- 21 RESPONSIVE TO NEW SCIENCE
- 22 Sec.201.Findings.
- 23 Sec. 202201. Definitions.
- 24 Sec. 203202. Required scientific studies.
- 25 Sec. 204203. Process for ensuring salmonid management is responsive to new science.
- 26 Sec. 205204. Nonnative reduction pilot program in the Delta and tributaries Pilot program to
- 27 protect native anadramous fish in the Stanislaus River.
- 28 Sec. 206205. Mark fishery and harvest management CALFED invasive species pilot projects in the
- 29 Sacramento-San Joaquin Bay Delta and its tributaries.
- 30 Sec. 207206, Mark fishery and harvest management.
- 31 Sec. 207. New actions to benefit Central Valley salmonids.
- 32 TITLE III—OPERATIONAL FLEXIBILITY AND DROUGHT

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#### RELIEF

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- 2 Sec.301.Findings.
- 3 Sec.302.Definitions.
- 4 Sec.303. Operational flexibility in times of drought.
- 5 Sec.304.Operation of cross-channel gates.
- 6 Sec.305.Flexibility for export/inflow ratio.
- 7 Sec.306.Emergency environmental reviews.
- 8 Sec.307.Prioritizing State revolving funds during droughts.
- 9 Sec.308.Increased flexibility for regular project operations.
- 10 Sec.309. Temporary operational flexibility for first few storms of 2014-2015 water year.
- 11 Sec.310.Expediting water transfers.
- 12 Sec.311.Warren Act contracts.
- 13 Sec.312.Additional Warren Act contracts.

#### 14 TITLE IV—INCREASING WATER STORAGE

- 15 Sec.401.Findings.
- 16 Sec.402.Calfed storage feasibility studies.
- 17 Sec.403.Water storage project construction.
- 18 Sec. 403 404. Other storage feasibility studies.
- 19 Sec. 404405. Dam safety projects with increased storage component.
- 20 Sec. 405 406. Updating water operations manuals for non-Federal projects.
- 21 Sec. 406 407. Central Valley Project.

#### 22 TITLE V—WATER RIGHTS PROTECTIONS

- 23 Sec.501.Protections for State water project contractors.
- 24 Sec.502. Area of origin protections.
- 25 Sec.503.No redirected adverse impacts.
- 26 Sec.50543.Effect on State laws.

#### 27 TITLE VI—MISCELLANEOUS

- 28 Sec.601. Authorized service area.
- 29 Sec.602.Rescheduled water.
- 30 Sec.603.Fisheries disaster declaration.
- 31 Sec.604.Oversight board for Restoration Fund.

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2 Sec.605. Judicial review. [placeholder, options attached separately]

3 Sec.606. Water operations review panel.

Sec.607. Contingency in event of continuing resolution for fiscal year 2015.

#### Congress finds that-

(1) The 2008 smelt biological opinion and 2009 salmon biological opinion contain reasonable and prudent alternatives to protect endangered fish species from being harmed by operation of the Central Valley Project and State Water Project.

(2) These reasonable and prudent alternatives in the biological opinions restrict the amount of water pumping that can occur to deliver water for agricultural, municipal, industrial, groundwater, and refuge uses within the Central Valley of California.

(3) Data on the difference between water demand and reliable water supplies for various regions south of the delta, including the San Joaquin Valley, indicate there is a significant annual gap between reliable water supplies to meet agricultural, municipal and industrial, groundwater, and refuges water needs within the South of Delta and Friant Division of the Central Valley Project and the State Water Project south of the Sacramento-San Joaquin River Delta and north of the Tehachapi mountain range and the demands of those areas. This gap varies depending on the methodology of the analysis performed, but can include representation in the following ways:

(a) For Central Valley Project South-of-Delta water service contractors, if it is assumed that a water supply deficit is the difference in the amount of water available for allocation versus the maximum contract quantity, particularly in more recent years, then the water supply deficits that have developed from 1992 to 2014 as a result of changes besides natural variations in hydrology during this timeframe range between 720,000 and 1,100,000 acre-feet.

(b) For Central Valley Project and State Water Project water service contractors south of the Delta and north of the Tehachapi mountain range, if it is assumed that a water supply deficit is the difference between reliable water supplies, including maximum water contract deliveries, safe yield of groundwater, safe yield of local and surface supplies and long-term contracted water transfers, and water demands, including water demands from agriculture, municipal and industrial and refuge contractors, then the water supply deficit ranges between approximately 2.500.000 to 2.700.000 acre-feet.

(c) State's analysis (pending information from DWR, ETA early week of 8/25)

(4) Since the issuance of the biological opinions, considerably uncertainty still exists about the benefits to endangered fish populations from water pumping restrictions. For example, hydrodynamic data, acoustic telemetry studies, and other recent studies found that through-Delta survival rates of salmonid species do not correlate directly and clearly with certain water pumping restrictions, in particular limitations to Old and Middle River flows to levels less negative than -5000 cubic feet per second.

(5) Data of pumping activities at the Central Valley Project and State Water Project delta

**Commented [PS1]:** Reclamation s analysis for CVP contractors South of Delta, not including San Felipe, using 1992 as a baseline and excluding this water year.

 $\label{lem:commented} \textbf{[PS2]:} \ \ \text{Our analysis, excluding this water year.}$ 

pumps identifies that, on average from 2008 to 2014, pumping activity takes 893 delta smelt annually with an authorized take level of 5,003 delta smelt annually – according to the biological opinion issued December 15, 2008.

(6) It is worth exploring whether there is a way to implement the biological opinions that would preserve the protections afforded endangered fish and simultaneously increase water deliveries to the Central Valley Project and State Water Project without weakening environmental laws or protections.

(7) In 2014, better information exists than was known in 2008 concerning conditions and operations that may or may not lead to high salvage events that jeopardize the fish populations, and what alternative management actions can be taken to avoid jeopardy.

(8) Alternative management strategies, such as trapping and barging juvenile salmon through the Delta, removing non-native species, enhancing habitat, and monitoring fish movement and location in real-time can contribute significantly to protecting and recovering these endangered fish species, and at potentially lower costs to water supplies.

16 Congress finds that

#### SEC. 23. DEFINITIONS.

In this Act:

- (1) DELTA.—The term "Delta" means the Sacramento-San Joaquin Delta and the Suisun Marsh, as defined in sections 12220 and 29101 of the California Public Resources Code.
  - (2) OMR.—The term "OMR" means the Old and Middle River in the Delta.
- (3) OMR FLOW OF -5000 CFS.—The term "OMR flow of -5000 cfs" means Old and Middle River flow of negative 5,000 cubic feet per second as measured by—
  - (A) the smelt biological opinion; and
  - (B) the salmonid biological opinion.
- (4) SALMONID BIOLOGICAL OPINION.—The term "salmonid biological opinion" means the biological opinion issued by the National Marine Fisheries Service on June 4, 2009.
- (5) SMELT BIOLOGICAL OPINION.—The term "smelt biological opinion" means the biological opinion on the Long-Term Operational Criteria and Plan for coordination of the Central Valley Project and State Water Project issued by the United States Fish and Wildlife Service on December 15, 2008.
  - (6) STATE.—The term "State" means the State of California.
- (7) TO AVOID JEOPARDY.—The term "to avoid jeopardy" means to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.

#### TITLE I—ADJUSTING DELTA SMELT MANAGEMENT

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# BASED ON INCREASED REAL-TIME MONITORING AND UPDATED SCIENCE

#### 3 SEC. 101. FINDINGS.

In this title:

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- (1) DIRECTOR.—The term "Director" means the Director of the United States Fish and Wildlife Service.
- (2) DELTA SMELT.—The term "delta smelt" means the fish species with the scientific name Hypomesus transpacificus.
  - (3) SECRETARY.—The term "Secretary" means the Secretary of the Interior.

# SEC. 103102. REVISE INCIDENTAL TAKE LEVEL CALCULATION TO REFLECT NEW SCIENCE.

- (a) In General.—Not later than October 1, 2015, consistent with the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) (including regulations) and subsection (b), the Director shall modify the method of calculating the incidental take level in the smelt biological opinion—
  - (1) to use the best salvage information available from 1993 to 2012;
- (2) to take into account—
  - (A) updated statistical models;
  - (B) updated scientific data; and
  - (C) improved understanding of Delta smelt entrainment dynamics; and
  - (3) to better represent actual entrainment and the population level impact of entrainment while allowing operations according to the reasonable and prudent alternatives described in the smelt biological opinion.
- (b) Modified Incidental Take Level.—Unless the Director determines in writing that all or part of the requirements described in paragraphs (1) through (4) are not appropriate, the modified incidental take level described in subsection (a) shall—
  - (1) be normalized for the abundance of prespawning adult Delta smelt using the Fall Midwater Trawl Index or other index;
  - (2) be based on a simulation of the salvage that would have occurred from 1993 through 2012 if OMR flow had been consistent with the smelt biological opinion;
  - (3) base that simulation on a correlation between annual salvage rates and historic water clarity and OMR flow during the adult salvage period; and
  - (4) set the incidental take level as the 80 percent upper prediction interval derived from simulated salvage rates from 1993 through 2012.

### SEC. <u>104103</u>. FACTORING INCREASED REAL-TIME

### MONITORING AND UPDATED SCIENCE INTO DELTA

#### SMELT MANAGEMENT.

(a) In General.—The reasonable and prudent alternatives described in the smelt biological opinion shall be implemented consistent with the best scientific and commercial data available.

- (b) Increased Monitoring to Inform Real-time Operations.—Effective during the period beginning on December 1, 2014 and ending March 31, 2015, and in each successive December through March period, if high suspended sediment loads enter the Delta from the Sacramento River and appear likely to raise turbidity levels in Old River north of the export pumps from values below 12 Nephelometric Turbidity Units to values above 12 Nephelometric Turbidity Units, the Director shall—
  - (1) conduct daily Kodiak Trawls in Old River in the vicinity of Station 902 to detect adult Delta smelt that might be moving within the turbidity cloud toward the export pumps; and
  - (2) use results from those trawls to help determine how increased trawling can inform in real-time what levels of exports can be pumped without risk of a large smelt salvage eventthe maximum rates of exports without risk of causing jeopardy.
  - (c) Periodic Review of Monitoring.—At least once every 5 years, the Director shall—
    - (1) evaluate whether the monitoring program under subsection (b), combined with other monitoring programs for the Delta, is providing sufficient data to inform operations; and
    - (2) determine whether the monitoring efforts should be changed in the short- or long-term to provide more useful data.
  - (d) Delta Smelt Distribution Study.-
    - (1) IN GENERAL.—In 2015, and every five years thereafter, the United States Fish and Wildlife Service shall perform targeted sampling studies and monitoring to determine the geographic areas and types of habitat occupied by delta smelt during all life stages.
      - (2) SAMPLING.—The sampling—
        - (A) shall include recording water quality and tidal data;
        - (B) should generally occur in areas not routinely sampled by existing monitoring programs, including wetland channels, near-shore water, depths below 35 feet, and shallow-water; and
          - (C) may require sampling gears not used during existing monitoring programs.
- (e) Scientifically Supported Implementation of Old and Middle River Flow Requirements.— Effective beginning December 1, 2014, in managing negative flow in the Old and Middle Rivers from December to June within the range established by the smelt biological opinion or any successor biological opinion, the Secretary shall—
  - consider the relevant provisions of the biological opinion or any successor opinion;
  - (2) document any significant facts about real-time conditions relevant to the determinations of the Secretary of rates at which reverse OMR flow will be managed, including—
    - (A) whether targeted real-time fish monitoring in Old River in the vicinity of Bacon Island pursuant to this section indicates that a significant increase in the salvage of

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Delta smelt is imminent; and 1 2 (B) whether near-term forecasts with available salvage models show under prevailing conditions that OMR flow of -5000 cfs will cause substantially increased 3 take of delta smelt; and 4 (3) document— 5 (A) the basis for the determination of the Secretary to require raised or lowered 6 7 OMR flow level within the range established by the smelt biological opinion or any 8 successor biological opinion, including an explanation of the data examined and the 9 connection between the data and the choice made; and (B) a showing that any limitation of OMR flow to levels less negative than -5000 10 cubic feet per second in the short-term is necessary to avoid jeopardy after considering 11 other alternatives, if any, that may have a lesser water supply impact. In making any 12 such showing, the Secretary shall consider the effects of managing negative flow in 13 Old and Middle River flow consistent with the definition of "effects of the action" 14 contained at 50 C.F.R. Part 402.02 and the definitions included in this title. 15 16 (f) Level of Detail Required for Analysis.—In documenting the determinations under 17 subsection (e), the Secretary shall fully satisfy the requirements of paragraphs (1) through (3) of 18 subsection (e) but is not required to provide a greater level of supporting detail for the analysis 19 than feasible to provide within the short time frame permitted for timely decisionmaking in 20 response to changing conditions in the Delta. Written determinations by the Secretary under subsection (e) and the 21 (g) Judicial Review. calculation of a revised incidental take limit under section 103 shall constitute final agency 22 23 netions. SEC. 201. FINDINGS. 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39

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(C) only 1 steelhead tagging study report has been published, which

(i) showed that steelhead smelt survival was considerably better than for Chinock salmon but

(ii) did not show that Control Valley Project and State Water Project operations had an effect on survival in the larger Delta:

(5) Delta hydrodynamic analyses and other fish tagging studies conducted near the date of enactment of this Act affirm acoustic telemetry study findings:

(6) analysis conducted near the date of enactment of this Act of the manner in which South Delta exports and San Joaquin River inflows impact water velocities in the Delta show that the magnitude and geographic range of export effects is significantly less than was presumed in the 2009 biological opinion;

(7) analyses published near the date of enactment of this Act

(A) demonstrate that proportional loss of Sacramento Basin juvenile salmonids to export pumping is on average less than 1 percent; and

(B) suggests proportional loss will remain low with Old and Middle River flow levels no more negative than 5000 cubic feet per second:

(8) these significant studies demonstrate that science on 3 fronts (juvenile salmonid survival, Delta hydrodynamics, and proportional entrainment) yields complimentary and consistent results, suggesting that

(A) export restrictions associated with inflow and export requirements and limitations and Old and Middle River flow are not substantially increasing survival rates for salmonids listed under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.); and

(B) despite substantially decreased water diversions, through Delta juvenile

(9) this title requires additional studies during 2015 to further analyze the effects of export restrictions on juvenile salmonid survival rates;

(10) the last of suitable juvenile salmon habitat and apparently high prodution rates from nonnative and invasive fish species present severe challenges to juvenile salmonide outmigrating through the Delta:

(11) restoration of salmonid populations may not be possible where the juvenile species have a poor probability of surviving outmigration,

(12) this title requires pilet studies in 2015 of whether trap and barge operations in the Delta could, if fully implemented, raise the survival rates of outmigrating salmonid juveniles to the 54 to 96 percent range seen in similar operations on the Columbia Rivery and

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(B) alternative, non-water consumptive actions cannot provide benefits equal to on
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greater than water expert related reasonable and prudent alternatives found in the
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salmonid biological opinion issued by the National Marine Fisheries Service on June 4,
2009.

### SEC. 2012. DEFINITIONS.

In this title:

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- (1) DASSISTANT ADMINISTRATOR IRECTOR.—The term "Director Assistant Administrator" means the Assistant Administrator of NOAA Fisheries. Director of the National Marine Fisheries Service.
- (2) LISTED SALMONID SPECIES.—The term "listed salmonid species" means natural origin steelhead, natural origin genetic spring run Chinook, and genetic winter run salmon smolts.
  - (3) SECRETARY.—The term "Secretary" means the Secretary of Commerce.

#### SEC. 203202. REQUIRED SCIENTIFIC STUDIES.

- (a) Trap and Barge Pilot Project to Increase Survival Through the Delta.—Not later than March 1, 2015, the Director, in collaboration with the Director of the California Department of Fish and Wildlife, shall issue necessary permits and otherwise facilitate—
  - (1) implementing a pilot program to trap juvenile listed salmonids species emigrating from the San Joaquin River basin and provide for the safe passage of the listed salmonid species by barge to the Western Delta; and
    - (2) conducting studies to evaluate the effectiveness of the pilot program.
  - (b) Enhanced Steelhead Study.—
    - (1) IN GENERAL.—Not later than December 31, 2015, the Director, in collaboration with the Director of the California Department of Fish and Wildlife, California public water agencies, and scientific investigators, shall report results of an expanded 6-year steelhead study specified in the salmonid biological opinion.
    - (2) REQUIREMENTS.—The field investigations for the 6-year steelhead study, to be completed during spring 2015, shall, at a minimum—
      - (A) include acoustic tagging of natural origin steelhead smolts captured during the pilot trap and barge program described in subsection (a) if fish of suitable size and condition are available;
      - (B) include an experimental manipulation of exports under which exports will range both substantially above and substantially below levels studied previously;
      - (C) include a sample size of acoustically tagged fish sufficient to detect an effect at least as small as a 10 percent change in absolute survival among experimental treatments;
        - (D) if available, use new acoustic tags capable of signaling when a tagged smolt has

been consumed by a predator; and

 (E) be conducted without the Head of Old River Barrier in place so that tagged fish may migrate through the Old River route.

(c) Experimental Variability.—Nothing in the relevant 2009 biological opinions or any successor biological opinion shall prohibit limited periods of exports that exceed applicable limits for the purpose of scientific inquiry, subject to rescheduling or cancellation of any exports that exceed applicable limits in the biological opinions if the Secretary of the Interior or the Secretary determines that it is necessary to do so to avoid jeopardy.

# SEC. 204203. PROCESS FOR ENSURING SALMONID MANAGEMENT IS RESPONSIVE TO NEW SCIENCE.

- (a) Purpose.—In response to the significant new science since the adoption of the salmonid biological opinion over 5 years before the date of enactment of this Act, the Secretary shall issue a written reevaluation and determination, in accordance with the standards and procedures described in this section, of in subsections (b)-(e) whether—
  - (1) certain water export limitations in the salmonid biological opinion are necessary to avoid jeopardy; or
  - (2) the water export limitations provide minor benefits that are either unnecessary for species survival or can be more effectively achieved through broadening or initiating any of a range of alternative management measures.
- (b) Framework for Evaluating the Necessity of Management Measures for Avoiding Jeopardy.—
  - (1) IN GENERAL.—To have the tools to evaluate whether certainIn order to evaluate whether existing or proposed water export limitations are necessary to avoid jeopardy in light of new science, the Secretary shall estimate the extent to which those export restrictions contribute to the survival of the species as compared to the contributions to species survival from a broad range of other management measures pursuant to paragraph (2).
  - (2) ESTIMATES RELATED TO DIFFERENT MANAGEMENT MEASURESOF HOW MUCH DIFFERENT MANAGEMENT MEASURES CONTRIBUTE TO SPECIES SURVIVAL.—Not later than December 31, 2016, and every five years thereafter, the Secretary shall, in collaboration with the Director of the California Department of Fish and Wildlife, based on and after taking into account the best scientific and commercial data available and giving greater weight to more recent data better reflecting current conditions in the Delta, for each listed salmonid species issue final quantitative estimates of the percentage increase in through-Delta survival the Secretary expects to be achieved—
    - (A) with export restrictions specified within RPA Actions IV.2.1 that limit flow to -5000 cubic feet per second compared to limiting flow to -2500 cubic feet per second, based on a given rate of San Joaquin River inflow to the Delta and holding other relevant factors constant;
    - (B) with inflow to export restrictions specified within RPA Actions IV.2.3 as compared to inflow to export requirements found in State Water Resources Control

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Formatted: Font: 16 pt. Italia Formatted: Font: 16 pt, Italic Formatted: Font: 16 pt, Italic Board decision D-1641, based on a given rate of San Joaquin River inflow to the Delta and holding other relevant factors constant;

- (C) by a trap-and-barge program based on the experience of other comparable systems and the studies described in section 203\_\_\_\_, as that information becomes
  - (D) through habitat enhancement programs;
  - (E) through predation control programs;
- (F) through the use of temporary barriers, the Cross Channel Gates, Head of Old River Barrier, and other projects affecting flow in the Delta;
- (G) by implementing a trapping program at the entrance to Clifton Court Forebay to capture and provide safe transport for entrained juvenile salmonids to the western Delta; and
  - (H) through the use of other management programs.
- (3) ESTIMATES RANGE OF INCREASED SURVIVAL PERCENTAGETO BE QUANTITATIVE TO THE MAXIMUM EXTENT FEASIBLE.—
  - (A) IN GENERAL.—To the maximum extent feasible, in estimating the benefits to the species from the management measures under paragraph (2), The the Secretary shall provide quantitative estimates, such as a range of percentage increases in through-Delta survival that could result from the management measures may provide a range of increased survival percentages for any of the measures described in paragraph (2), if the Secretary determines that the best scientific and commercial data available does not support an estimate of a specific percentage.
  - (B) If the Secretary cannot provide a quantitative estimate of the benefits to the species from a particular management measure, the Secretary shall qualitatively estimate the benefits.
  - (C) If the Secretary provides qualitative estimates of the benefits to the species from one or more management measures, the Secretary shall, to the maximum extent feasible, rank the management measures described in paragraph (2) in terms of their most likely expected contribution to increased through-Delta survival relative to the other measures. LIMITATION. The Secretary shall limit any range developed under subparagraph (A) to increased survival percentages that the Secretary determines have a reasonable probability of occurring.
  - (4) DRAFT ESTIMATES, PUBLIC COMMENT, AND SCHEDULE.—
    - (A) IN GENERAL.—The Secretary shall—
      - (i) not later than February 1, 2015, make available to the public the study design, including the data and analyses that the Secretary intends to use, for determining estimates of increased through-Delta survival percentages benefits for the species; and
      - (ii) provide an opportunity for public comment on the study design until April 30, 2015.

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1	(B) Draft estimates.—
2	(i) IN GENERAL.—Not later than December 31, 2015, the Secretary shall—
3 4	(I) issue draft quantitative estimates that will temporarily serve as a reference until the Secretary issues the final quantitative estimates; and
5 6 7	(II) concurrent with issuance of the draft <del>quantitative</del> estimates, make available to the public all data and analyses that were used or relied on to develop the draft <del>quantitative</del> estimates.
8 9	(ii) PUBLIC COMMENT.—The Secretary shall provide an opportunity for public comment on the draft quantitative estimates for a period of 4 months.
10 11	(5) REVISIONS TO ESTIMATES.—The Secretary shall update the final quantitative estimates—
12 13 14	(A)(i) periodically as necessary to address new scientific if requested to do so by the Governor of California, after the end of the 5-year period beginning on the date of the last update; and
15 16	(B) in accordance with the process described in paragraph (4), other than the deadlines prescribed for specific calendar dates.
17	(c) Scientifically Supported Implementation of Old and Middle River Flow Requirements.—
18 19 20	(1) IN GENERAL.—Nothing in this subsection affects the limitation of OMR flow that is greater (more negative) than -5000 cubic feet per second, as described in the salmonid biological opinion.
21 22 23	(2) REQUIREMENTS.—Beginning January 1, 2016, in managing OMR River flow pursuant to the salmonid biological opinion or any successor biological opinion, the Secretary shall—
24 25	(A) consider the relevant provisions in the <u>2009</u> biological opinion <u>or any successor biological opinion</u> and other relevant data; and
26 27 28	(B) articulate the basis for the determination of the Secretary to require raised or lowered OMR flow levels within the range established by the salmonid biological opinion or any successor biological opinion, including—
29 30	(i) an explanation of the data examined and the connection between the data and the choice made; and
31 32 33 34 35 36	(ii) a showing that any limitation of OMR flow to levels less negative than - 5000 cubic feet per second in the short-term is necessary to avoid jeopardy. In making any such showing, the Secretary shall consider the effects of managing negative flow in Old and Middle River flow consistent with the definition of "effects of the action" contained at 50 C.F.R. Part 402.02 and the definitions included in this title.
37 38 39 40	(3) EXPLANATION.—In any analysis of potential jeopardy conducted pursuant to paragraph (2)(B), the Secretary shall explain why implementation of this measure in particular OMR flow rate less negative than -5,000 cubic feet per second is necessary to avoid jeopardy, including by determining that—

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(A) it is not technically feasible or within Federal jurisdiction to achieve any increased survival benefit of the same or greater quantity from broadening or initiating any of the management measures described in subsection (b)(2) or other alternative management measures, including measures implemented with the support of a substantial contribution from water districts;

- (B) if it is technically feasible and within Federal jurisdiction to implement any such alternative management measures, the adverse consequences of doing so exceed the adverse consequences of limiting OMR flow to levels less negative than -5000 cubic feet per second, including a concise evaluation of the adverse consequences to other affected interests; or
- (C) it is technically feasible but not within Federal jurisdiction to implement certain alternative management measures, in which case the Secretary shall specifically describe the determination and the 1 or more alternative management measures.
- (4) COMPARISON OF BENEFITS.—If at the time the Secretary conducts the analysis under paragraph (3), the Secretary has not issued the draft or final quantitative estimates of increased through-Delta survival percentages forbenefits from different management measures pursuant to subsection (b), the Secretary shall compare the benefits to the species from different management measures based on the best scientific and commercial data available at the time.
- (d) Scientifically Supported Implementation of Inflow and Export Requirements.—
  - (1) IN GENERAL.—Beginning April 1, 2016, in relation to the provisions limiting the ratio of water exports from the Delta in relation to flow in the San Joaquin River beyond what is required under the State Water Resources Control Board Decision D-1641 pursuant to the salmonid biological opinion and any successor biological opinion, the Secretary shall—
    - (A) consider the relevant provisions in the biological opinion and other relevant data; and
    - (B) articulate an explanation, including of the data examined and the connection between the data and the choice made, as to why a limitation beyond that required under the State Water Resources Control Board Decision D-1641 in the short-term is necessary to avoid jeopardy as a prerequisite to continuing Action IV.2.3 of the salmonid biological opinion or any equivalent successor provision.
  - (2) REQUIREMENTS.—In any analysis of potential jeopardy conducted under paragraph (1)(B), the Secretary shall explain why implementation of this measurea limitation beyond that required under the State Water Resources Control Board Decision D-1641 in the short term is necessary to avoid jeopardy as a prerequisite to continuing Action IV.2.3 of the salmonid biological opinion or any equivalent successor provision in particular is necessary to avoid jeopardy, including by determining—
    - (A) it is not technically feasible or within Federal jurisdiction to achieve any increased survival benefit of the same or greater quantity from broadening or initiating any of the management measures described in subsection (b)(2) or other alternative management measures, including measures implemented with the support of a substantial contribution from water districts;

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(B) if it is technically feasible and within Federal jurisdiction to implement any such alternative management measures, the adverse consequences of doing so exceed the adverse consequences of limiting the ratio of water exports from the Delta in relation to flow in the San Joaquin River beyond what is required under the State Water Resources Control Board Decision D-1641, including a concise evaluation of the adverse consequences to other affected interests; or

- (C) it is technically feasible but not within Federal jurisdiction to implement certain such alternative management measures, in which case the Secretary shall specifically describe the determination and the 1 or more alternative management measures.
- (3) COMPARISON OF BENEFITS.—If at the time the Secretary conducts the analysis in paragraph (2), the Secretary has not issued the draft or final quantitative estimates of increased through-Delta survival percentages for benefits from different management measures pursuant to subsection (b), the Secretary shall compare the benefits to the species from different management measures based on the best scientific and commercial data available at the time.

(e) Judicial Review. Determinations by the Secretary of OMR flow determinations under subsection (e) and inflow and export ratio determinations under subsection (d) shall constitute final agency action.

SEC. 205204. NONNATIVE REDUCTION PILOT PROGRAM IN THE DELTA AND TRIBUTARIES PILOT PROGRAM TO PROTECT NATIVE ANADRAMOUS FISH IN THE STANISLAUS RIVER.

(a) Establishment of Non-native Predator Fish Removal Program- The Assistant Administrator, in consultation with the United States Fish and Wildlife Service and the California Department of Fish and Wildlife, shall develop and conduct a pilot non-native predator fish removal program to remove non-native striped bass, smallmouth bass, largemouth bass, black bass, and other non-native predator fishes from the Stanislaus River. The pilot program shall--

#### (1) be scientifically based;

(2) include methods to quantify the number and size of predator fishes removed each year, the impact of such removal on the overall abundance of predator fishes, and the impact of such removal on the populations of juvenile anadromous fish found in the Stanislaus River by, among other things, evaluating the number of juvenile anadromous fish that migrate past the rotary screw trap located at Caswell;

(3) among other methods, use wire fyke trapping, portable resistance board weirs, and boat electrofishing, which are among the most effective predator collection techniques that minimize effects to native anadromous fish:

(4) be developed, including the application for all necessary scientific research and species enhancement permits under section 10(a)(1) of the Endangered Species Act of 1973 (16 U.S.C. 1539(a)(1)), for the performance of the pilot program, not later than 6 months after the date of the enactment of this Act;

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(5) be implemented on the first business day of the calendar year following the issuance of all necessary scientific research and species enhancement permits needed to begin the pilot program; and

(6) be implemented for a period of seven consecutive calendar years.

(b) Management- The management of the pilot program shall be the joint responsibility of the Assistant Administrator and the districts. Such parties shall work collaboratively to ensure the performance of the pilot program, and shall discuss and agree upon, among other things, changes in the structure, management, personnel, techniques, strategy, data collection, reporting and conduct of the pilot program.

#### (c) Conduct-

(1) IN GENERAL- At the election of the districts, the pilot program may be conducted by their own personnel, qualified private contractors hired by the districts, personnel of, on loan to, or otherwise assigned to NOAA Fisheries, or a combination thereof.

(2) PARTICIPATION BY NOAA FISHERIES -In the event the districts elect to conduct the program using their own personnel or qualified private contractors hired by them, the Commissioner has the option to assign an employee of, on loan to, or otherwise assigned to NOAA Fisheries, to be present for all activities performed in the field. Such presence shall ensure compliance with the agreed upon elements specified in subsection (b). The districts shall pay 100 percent of the cost of such participation as specified in subsection (d).

(3) TIMING OF ELECTION- The districts shall notify the Asssistant Administrator of their election on or before October 15 of each calendar year of the pilot program, which election shall apply to the work performed in the subsequent calendar year.

#### (d) Funding-

(1) ANNUAL FUNDING- The districts shall be responsible for 100 percent of the cost of the pilot program. On or before December 1 of each year of the pilot program, the Commissioner shall submit to the districts an estimate of the cost to be incurred by the Bureau of Reclamation in the following calendar year, if any, including the cost of any data collection and posting under subsection (e). If an amount equal to the estimate is not provided to the fund directed by the Assistant Administrator by the districts on or before December 31 of each year. (a) NOAA Fisheries shall have no obligation to conduct the pilot program activities otherwise scheduled, and (b) the districts shall be prohibited from conducting any aspect of the pilot program, until full payment is made by the districts.

(2) ACCOUNTING- On or before September 1 of each calendar year, the Assistant Administrator shall provide an accounting of the prior calendar year's expenses to the districts. If the estimate paid by the districts was less than the actual costs incurred by NOAA Fisheries, the districts shall have until September 30 of that calendar year to pay the difference to the fund identified by the Assistant Administrator in subsection (d)(1). If the estimate paid by the districts was greater than the actual costs incurred by NOAA Fisheries, then a credit shall be provided to the districts, which shall be deducted from the estimate payment the districts must make for the work performed by NOAA Fisheries, if any, in the next calendar year.

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(e) Reporting and Evaluation-

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2 3 4	(1) IN GENERAL- On or before the 15th day of each month, the Assistant Administrator shall post on the website of NOAA Fisheries a tabular summary of the raw data collected in the prior month.
5 6 7	(2) REPORT- On or before June 30 of the calendar year following the completion of the program, the Assistant Administrator and districts shall jointly publish a peer reviewed report that
8	(A) discusses the findings and conclusions of the pilot program:
9	(B) synthesizes the data collected under paragraph (1); and
10	(C) makes recommendations for further study and action.
11	(f) Permits Process-
12 13 14 15 16	(1) Not later than one year after filing of an application by the Assistant Administrator and the districts, the Secretary of the Interior, the Secretary of Commerce, or both, as appropriate, shall issue all necessary scientific research and species enhancement permits under section 10(a)(1) of the Endangered Species Act (16 U.S.C. 153(9)(a)(1)), for the performance of the pilot program.
17	(2) All permits issued shall be in the name of NOAA Fisheries and the districts.
18 19	(3) Districts may delegate the authority to administer the permit authority to any qualified private contractor retained in accordance with subsection (c).
20 21 22 23 24	(g) Emergency Environmental Reviews – To expedite this environmentally beneficial program for the conservation of threatened and endangered species, the Secretary of the Interior shall consult with the Council on Environmental Quality in accordance with Section 1506.11 of title 40, Code of Federal Regulations (including successor regulations) to develop alternative arrangements to comply with the National Environmental Policy Act of 1969 for this section.
<b>25</b>	(h) Definitions- For the purposes of this section:
26 27	(1) COMMISSIONER- The term 'Commissioner' means the Commissioner of the Bureau of Reclamation.
28 29	(2) DISTRICTS- The term 'districts' means the Oakdale Irrigation District and the South San Joaquin Irrigation District.
30 31	(3) PILOT PROGRAM- The term 'program' means the pilot non-native predator removal program established under this section.
32 33	(i) Sunset- The authorities provided under this section shall expire seven years after the implementation of the pilot program.
34	SEC. 205. CALFED INVASIVE SPECIES PILOT PROJECTS
35	IN THE SACRAMENTO-SAN JOAQUIN BAY DELTA AND
36	ITS TRIBUTARIES.
37	(a) FINDINGS.—Congress finds that—

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1	(1) The Sacramento-San Joaquin Bay Delta and its Tributaries-
2	(A) is one of the largest and most diverse estuaries in the United States,
3	(B) is a natural treasure and a vital link in California's water system, and
4 5 6	(C) has native biodiversity important to the ecological and economic systems of California, including water deliveries to agriculture, municipalities and to the environment and fisheries industries, and
7 8	(D) has river tributaries important for rearing of salmon and steelhead smolts which experience a high level of predation from non-native species.
9 10 11	(2) Past, present and future introductions of invasive species are and will be a major factor in the decline of native pelagic and anadromous endangered or threatened species in the Sacramento—San Joaquin Bay Delta and its tributaries.
12 13 14	(3) More than 250 nonnative aquatic and plant species have been introduced into the Delta and its tributaries; of these, at least 185 species have become established and have altered the Sacramento-San Joaquin Bay Delta watershed's ecosystem.
15 16 17 18 19 20 21 22 23	(4) The Bay Delta Conservation Plan, the Recovery Plan for the Evolutionary Significant Units of Sacramento River Winter-run Chinook Salmon and Central Valley Spring-run Chinook Salmon and the Distinct Population Segment of the Central Valley Steelhead, the Recovery Plan for the Sacramento-San Joaquin Delta Native Fishes, and the multiple 5 year reviews of those plans all highlight that introduced nonnative invasive species are a significant factor in the decline of native fish species. These nonnative species, which include invasive aquatic vegetation, predators, and competitors, directly or indirectly cause biological stress for pelagic and anadromous endangered or threatened fish species in the Sacramento-San Joaquin Bay-Delta and its tributaries.
24 25 26	(5) If threats by nonnative species to native fish species are not addressed, there is a high probability that native species of the Sacramento-San Joaquin Bay-Delta watershed's pelagic and anadromous community will go extinct.
27 28	(6) The CALFED legislation (Public Law 108-361) authorized a program to prevent, control, and eradicate invasive species, but it has not been implemented to date.
29 30 31 32	(7) A focused pilot program needs to be conducted within the Delta and river tributaries to reduce threats to native listed species by nonnative species. Reducing nonnative stressors on native listed species will contribute to both native listed species recovery and lowering the impact on downstream water users as those native listed species recover.
33	(b) PILOT PROJECTS TO IMPLEMENT CALFED INVASIVE SPECIES PROGRAM.
34 35 36 37 38	(1) Not later than January 1, 2016, the Secretary of the Interior, in collaboration with the Secretary of Commerce and the Director of the California Department of Fish and Wildlife, shall begin pilot projects to implement the invasive species program, including prevention, control and eradication authorized pursuant to Section 103(d)(6)(A)(iv) of Public Law 108-361. The pilot projects shall:
39 40	(A) seek to reduce invasive aquatic vegetation, predators, and other competitors which are major factors in the decline of native listed pelagic and anadromous

1 2	species that occupy the Sacramento and San Joaquin Rivers and their tributaries and the Sacramento-San Joaquin Bay-Delta; and
3 4 5 6	(B) address how to remove, reduce, or control the effects of species including: Asiatic clams, silversides, gobies, Brazilian water weed, largemouth bass, smallmouth bass, striped bass, crappie, bluegill, white and channel catfish, and brown bullheads.
7	(2) The Secretary of the Interior's efforts shall consist of the following phases:
8 9	(A) Phase 1. The Secretary of the Interior shall convene a panel of experts, including experts recommended by the State of California, to:
10 11	(i) Identify the non-native species having the greatest impact on the viability of native pelagic and anadromous native listed species; and
12 13 14 15	(ii) Identify the non-native species for which actions to reduce or control the population is determined to be possible; and
16 17	(iii) Design a study to reduce the non-native species identified in clauses (i and (ii) and prepare a cost estimate to implement this study.
18 19 20 21 22 23	(B) Phase 2. The Secretary of the Interior shall test the general viability of nonnative reduction methods, including either direct predator removal or alteration of channel conditions, or some combination thereof, through pilot projects at multiple sites in addition to the projects on the Stanislaus River pursuant to Section , including known hotspots of predator aggregation or activity, such as:
24	(i) Clifton Court Forebay,
<b>2</b> 5	(ii) Central Valley Project intakes.
26	(iii) Head of Old River,
27	(iv) Georgiana Slough,
28	(v) Old and Middle Rivers,
29	(vi) Franks Tract,
30	(vii) Paintersville Bridge,
31 32 33	(viii) individual river tributaries important for wild populations of anadromous species listed as threatened or endangered under the Endangered Species Act of 1973.
34	(ix) Human-made submerged structures, and
35	(x) Salvage release sites.
36 37 38	(C) Phase 3. If it is feasible to do so, the Secretary of the Interior shall implement nonnative reduction methods at a larger number of sites, incorporating information learned during the first and second phase.

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(3) The Secretary of the Interior shall collect data associated with the implementation of 1 the projects above, and shall specifically collect data on the impact on 2 3 (A) pelagic and anadromous species listed as threatened or endangered under the Endangered Species Act of 1973. 4 5 (B) water quality, and (C) water supply. 6 7 (4) After assessing the data described in subparagraph (2), the Secretary of the Interior, in 8 collaboration with the Secretary of Commerce and the Director of the California Department of Fish and Wildlife, shall, if appropriate, annually recommend revisions to 9 the reasonable and prudent alternatives contained in the salmonid biological opinion and 10 the biological opinion issued by the United States Fish and Wildlife Service on December 11 15, 2008, or other administrative federal requirements governing the operation of the 12 13 Central Valley Project and the State Water Project, that are likely to produce additional 14 fishery, water quality, and water supply benefits. (c) IMPLEMENTATION. The Secretary of the Interior shall implement the CALFED program 15 described in subpart (b) for at least a period of seven consecutive years beginning on the date of 16 17 implementation. (d) REPORTING REQUIREMENTS. The Secretary of the Interior shall provide reports to the 18 Senate Committee on Environment and Public Works and the House Committee on Natural 19 20 Resources on the following: 21 (1) No later than January 1, 2016, a description of the projects described in subpart (b), including the application for all necessary scientific research and species enhancement 22 permits under section 10(a) (1) of the Endangered Species Act of 1973 (16 U.S.C. 23 1539(a)(1)), and for the performance of the CALFED invasive species Program. 24 (2) Upon the completion of Phase 1 as described in subsection (b)(1)(A), a report 25 describing its implementation and cost effectiveness. 26 27 (3) Two years after the project begins, a report describing the progress of the eradication 28 of the nonnative species in the Sacramento-San Joaquin Bay-Delta and its tributaries and 29 how such efforts have helped the Recovery Plans for endangered and threatened 30 Anadromous and Pelagic Species in the San Joaquin -Sacramento Bay-Delta watershed 31 32 and the associated cost effectiveness of each control measure. 33 (4) After the pilot projects are complete, a report describing the results of the program. including recommendations on whether the program should be continued, how the 34 35 program may be taken to full scale in the most cost effective manner, and how a mitigation program for the Central Valley Project allowable under section 10(a)(1) of the 36 37 Endangered Species Act of 1973 (16 U.S.C. 1539(a)(1) could be implemented. 38 (e) EMERGENCY ENVIRONMENTAL REVIEWS. To expedite this environmentally beneficial 39 program for the conservation of threatened and endangered species, the Secretary of the Interior 40 shall consult with the Council on Environmental Quality in accordance with section 1506.11 of title 40, Code of Federal Regulations (including successor regulations) to develop alternative 41 42

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arrangements to comply with the National Environmental Policy Act of 1969 for this program.

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## SEC. 206. MARK FISHERY AND HARVEST MANAGEMENT.

(a) In General.—To minimize the impact of harvest and project operations on salmonids, contribute to recovery of stocks of endangered or threatened species, and to minimize risk of a natural origin fall Chinook listing under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), not later than 2015, the Director shall implement a mass marking program for Central Valley hatchery fall Chinook, in partnership with the Director of the California Department of Fish and Wildlife and persons responsible for funding Central Valley hatcheries.

#### (b) Harvest Management Strategies .-

- (1) IN GENERAL.—Not later than October 1, 2018, the Director shall assess and implement new harvest management strategies to provide better protection for sensitive Chinook stocks while still allowing for harvest of hatchery fall Chinook.
- (2) INCLUSIONS.—Alternative harvest strategies assessed shall include stock-specific quotas, daily landing limits, terminal fisheries, and mark-selective fisheries, all of which methods are standard practice for Chinook harvest management in Oregon and Washington.

# SEC. 207. NEW ACTIONS TO BENEFIT CENTRAL VALLEY SALMONIDS.

Not later than March 1, 2016, under similar terms and conditions as successful United States Fish and Wildlife Service programs on Clear Creek and Battle Creek, the Director, in collaboration with the Director of the California Department of Fish and Wildlife, the Commissioner of the Bureau of Reclamation, or both, shall issue necessary permits and otherwise facilitate the deployment of temporary in-river structures—

- (1) to protect and grow natural origin spring Chinook populations by blocking access to hatchery origin fall Chinook; and
- (2) to prevent hatchery origin Chinook salmon and steelhead from reaching spawning grounds where the species will compete for spawning with natural origin fish listed under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.).

# 28 TITLE III—OPERATIONAL FLEXIBILITY AND DROUGHT 29 RELIEF

### 30 SEC. 301. FINDINGS.

#### Congress finds that—

- (1) as established in the Proclamation of a State of Emergency issued by the Governor of the State on January 17, 2014, the State is experiencing record dry conditions;
- (2) extremely dry conditions have persisted in the State since 2012, and the drought conditions are likely to persist into the future;
  - (3) the water supplies of the State are at record-low levels, as indicated by-

1 2	(A) a statewide average snowpack of 12 percent of the normal average for winter as of February 1, 2014; and
3 4	(B) the fact that all major Central Valley Project reservoir levels were at levels equal to or less than 50 percent of the capacity of the reservoirs as of April 1, 2014;
5 6 7	(4) the drought of 2013 through 2014 constitutes a serious emergency that poses immediate and severe risks to human life and safety and to the environment throughout the State;
8	(5) the serious emergency described in paragraph (4) requires—
9 10	(A) immediate and credible action that respects the complexity of the water system of the State and the importance of the water system to the entire State; and
11 12	(B) policies that do not pit stakeholders against one another, which history shows only leads to costly litigation that benefits no one and prevents any real solutions;
13 14 15 16	(6) Federal law (including regulations) directly authorizes expedited decisionmaking procedures and environmental and public review procedures to enable timely and appropriate implementation of actions to respond to the type and severity of the serious emergency described in paragraph (4); and
17 18 19	(7) the serious emergency described in paragraph (4) fully satisfies the conditions necessary for the exercise of emergency decisionmaking, analytical, and public review requirements under—
20	(A) the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.);
21	(B) the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.);
22 23 24	(C) water control management procedures of the Corps of Engineers described in section 222.5 of title 33, Code of Federal Regulations (including successor regulations); and
25 26	(D) the Reclamation States Emergency Drought Relief Act of 1991 (Public Law 102–250; 106 Stat. 53).
27	SEC. 302. DEFINITIONS.
28	In this title:
29 30 31	(1) CENTRAL VALLEY PROJECT.—The term "Central Valley Project" has the meaning given the term in section 3403 of the Central Valley Project Improvement Act (Public Law 102–575; 106 Stat. 4707).
32 33 34	(2) KLAMATH PROJECT.—The term "Klamath Project" means the Bureau of Reclamation project in the States of California and Oregon, as authorized under the Act of June 17, 1902 (32 Stat. 388, chapter 1093).
35 36 37	(3) RECLAMATION PROJECT.—The term "Reclamation Project" means a project constructed pursuant to the authorities of the reclamation laws and whose facilities are wholly or partially located in the State.

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(4) SECRETARIES.—The term "Secretaries" means—

(C) the Secretary of Commerce; and

(D) the Secretary of the Interior.

Department of Water Resources.

CONTIDENTIAL DIVAL LANGUAGE	NOT TON DISTRIBUTION		
(A) the Administrator of the Environmental Protection Agency:			Formatted: Font: 16 pt, Italic
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<b>(</b> )	michai i fotection Agency,		
<ul><li>(B) the Secretary of Agriculture;</li></ul>			

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# SEC. 303. OPERATIONAL FLEXIBILITY IN TIMES OF DROUGHT.

#### (a) Water Supplies.—

(1) IN GENERAL.—In response to a declaration of a state of drought emergency by the Governor of California and for the period of time such a drought declaration remains in effect, the Secretaries shall provide the maximum quantity of water supplies practicable to Central Valley Project agricultural, municipal and industrial, and refuge service and repayment contractors, State Water Project contractors, and any other locality or municipality in the State, by approving, consistent with applicable laws (including regulations), projects and operations to provide additional water supplies as quickly as practicable based on available information to address the emergency conditions.

(5) STATE WATER PROJECT.—The term "State Water Project" means the water project

described by California Water Code section 11550 et seq., and operated by the California

- (2) APPLICATION.—Paragraph (1) applies to projects or operations involving the Klamath Project if the projects or operations would benefit Federal water contractors in the State.
- (b) Administration.—In carrying out subsection (a), the Secretaries shall, consistent with applicable laws (including regulations)—
  - (1) issue all necessary permit decisions under the authority of the Secretaries not later than 30 days after the date on which the Secretaries receive a completed application from the State to place and use temporary barriers or operable gates in Delta channels to improve water quantity and quality for the State Water Project and the Central Valley Project south of Delta water contractors and other water users, on the condition that the barriers or operable gates—
    - (A) provide benefits for species protection and in-Delta water user water quality;
       and
    - (B) are designed so that formal consultations under section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1536) are not necessary;
  - (2) require the Director of the United States Fish and Wildlife Service and the Commissioner of Reclamation—
    - (A) to complete, not later than 30 days after the date on which the Director or the Commissioner receives a water transfer request associated with voluntarily fallowing nonpermanent crops in the State, all requirements under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) necessary to make final permit decisions on the request; and

(B) to grant any water transfer request described in subparagraph (A) to maximize the quantity of water supplies available for nonhabitat uses, on the condition that the fallowing and associated water transfer are in compliance with applicable Federal laws (including regulations);

- (3) adopt a 1:1 inflow to export ratio for the increment of increased flow of the San Joaquin River, as measured as a 3-day running average at Vernalis during the period beginning on April 1, and ending on May 31, resulting from voluntary transfers and exchanges of water supplies, on the condition that a proposed transfer or exchange under this paragraph may only proceed if the Secretary of the Interior determines that the environmental effects of the proposed transfer or exchange are consistent with effects permissible under applicable law (including regulations); and
- (4) make any WaterSMART grant funding allocated to the State available on a priority and expedited basis for projects in the State that—
  - (A) provide emergency drinking and municipal water supplies to localities in a quantity necessary to meet minimum public health and safety needs;
    - (B) prevent the loss of permanent crops;
    - (C) minimize economic losses resulting from drought conditions; or
  - (D) provide innovative water conservation tools and technology for agriculture and urban water use that can have immediate water supply benefits.
- (c) Accelerated Project Decision and Elevation.—
  - (1) IN GENERAL.—On request by the State, the heads of Federal agencies shall use the expedited procedures under this subsection to make final decisions relating to a Federal project or operation to provide additional water supplies or address emergency drought conditions pursuant to subsections (a) and (b).
    - (2) REQUEST FOR RESOLUTION.—
      - (A) IN GENERAL.—On request by the State, the head of a Federal agency described in [paragraph (1)], or the head of another Federal agency responsible for carrying out a review of a project, as applicable, the Secretary of the Interior shall convene a final project decision meeting with the heads of all relevant Federal agencies to decide whether to approve a project to provide emergency water supplies.
      - (B) MEETING.—The Secretary of the Interior shall convene a meeting requested under subparagraph (A) not later than 7 days after the date on which the meeting request is received.
  - (3) NOTIFICATION.—On receipt of a request for a meeting under paragraph (2), the Secretary of the Interior shall notify the heads of all relevant Federal agencies of the request, including information on the project to be reviewed and the date of the meeting.
  - (4) DECISION.—Not later than 10 days after the date on which a meeting is requested under paragraph (2), the head of the relevant Federal agency shall issue a final decision on the project.
    - (5) MEETING CONVENED BY SECRETARY.—The Secretary of the Interior may convene a

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final project decision meeting under this subsection at any time, at the discretion of the Secretary, regardless of whether a meeting is requested under paragraph (2).

- (d) Application.—To the extent that a Federal agency, other than the agencies headed by the Secretaries, has a role in approving projects described in subsections (a) and (b), this section shall apply to those Federal agencies.
- (e) Limitation.—Nothing in this section authorizes the heads of applicable Federal agencies to approve projects—
  - (1) that would otherwise require congressional authorization; or
  - (2) without following procedures required by applicable law.

#### SEC. 304. OPERATION OF CROSS-CHANNEL GATES.

- (a) In General.—The Secretary of Commerce and the Secretary of the Interior shall jointly—
  - (1) authorize and implement activities to ensure that the Delta Cross Channel Gates remain open to the maximum extent practicable using findings from the United States Geological Survey on diurnal behavior of juvenal salmonids, timed to maximize the peak flood tide period and provide water supply and water quality benefits for the duration of the drought emergency declaration of the State, consistent with operational criteria and monitoring criteria developed pursuant to the Order Approving a Temporary Urgency Change in License and Permit Terms in Response to Drought Conditions of the California State Water Resources Control Board, effective January 31, 2014 (or a successor order);
  - (2) with respect to the operation of the Delta Cross Channel Gates described in paragraph (1), collect data on the impact of that operation on—
    - (A) species listed as threatened or endangered under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.);
      - (B) water quality; and
      - (C) water supply;
  - (3) consistent with knowledge gained from activities carried out during 2014, collaborate with the California Department of Water Resources to install a deflection barrier at Georgiana Slough in coordination with Delta Cross Channel Gate diurnal operations to protect migrating salmonids;
  - (4) evaluate the combined salmonid survival in light of activities carried out pursuant to paragraphs (1) through (3) in deciding how to operate the Delta Cross Channel gates to enhance salmonid survival and water supply benefits; and
  - (5) not later than May 15, 2015, submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Natural Resources of the House of Representatives a written report on the extent to which the gates are able to remain open.
- (b) Recommendations.—After assessing the information collected under subsection (a), the Secretary [of the Interior] shall recommend revisions to the operation of the Delta Cross-Channel Gates, to the Central Valley Project, and to the State Water Project, including, if appropriate, any reasonable and prudent alternatives contained in the biological opinion issued by the National

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Marine Fisheries Service on June 4, 2009, that are likely to produce fishery, water quality, and water supply benefits.

#### SEC. 305. FLEXIBILITY FOR EXPORT/INFLOW RATIO.

In response to the declaration of a state of drought emergency by the Governor of California and for the period of time such a drought declaration remains in effect, consistent with the Central Valley Project and State Water Project Drought Operations Plan and Operational Forecast, the Commissioner of the Bureau of Reclamation shall continue to vary the averaging period of the Delta Export/Inflow ratio pursuant to the California State Water Resources Control Board decision D1641, approved in the March Temporary Urgency Change Order—

- (1) to operate to a 35 percent Export/Inflow ratio with a 3 day averaging period on the rising limb of a Delta inflow hydrograph; and
- (2) to operate to a 14 day averaging period on the falling limb of the Delta inflow hydrograph.

#### SEC. 306. EMERGENCY ENVIRONMENTAL REVIEWS.

To minimize the time spent carrying out environmental reviews and to deliver water quickly that is needed to address emergency drought conditions in the State during the duration of an emergency drought declaration, the head of each applicable Federal agency shall, in carrying out this Act, consult with the Council on Environmental Quality in accordance with section 1506.11 of title 40, Code of Federal Regulations (including successor regulations), to develop alternative arrangements to comply with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) during the emergency.

## SEC. 307. PRIORITIZING STATE REVOLVING FUNDS DURING DROUGHTS.

- (a) In General.—This section shall apply for each of the fiscal years during which an emergency drought declaration of the State is in effect.
- (b) The The Administrator of the Environmental Protection Agency, in allocating amounts for each of the fiscal years during which an emergency drought declaration of the State is in effect to in implementing the processes and programs under the State water pollution control revolving funds established under title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) and the State drinking water treatment revolving loan funds established under section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j–12), shall, for those projects that are eligible to receive assistance under section 603 of the Federal Water Pollution Control Act (33 U.S.C. 1383) or section 1452(a)(2) of the Safe Drinking Water Act (42 U.S.C. 300j–12(a)(2)), respectively, that the State determines will provide additional water supplies most expeditiously to areas that are at risk of having an inadequate supply of water for public health and safety purposes or to improve resiliency to drought
  - (12) issue a determination of waivers within 30 days of the conclusion of the informal public comment period pursuant to section 436(e) of title IV of division G of Public Law 113–76; and
    - (32) authorize, at the request of the State, 40-year financing for assistance under section

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603(d)(2) of the Federal Water Pollution Control Act (33 U.S.C. 1383(d)(2)) or section 1452(f)(2) of the Safe Drinking Water Act (42 U.S.C. 300j-12(f)(2)).

(c) Effect of Section.—Nothing in this section authorizes the Administrator of the Environmental Protection Agency to modify any funding allocation, funding criteria, or other requirement relating to State water pollution control revolving funds established under title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) and the State drinking water treatment revolving loan funds established under section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j–12) for any other State.

## SEC. 308. INCREASED FLEXIBILITY FOR REGULAR PROJECT OPERATIONS.

The Secretaries shall, consistent with applicable laws (including regulations)—

- (1) to the maximum extent practicable, based on the availability of water and without causing land subsidence or violating water quality standards—
  - (A) help meet the contract water supply needs of Central Valley Project refuges through the improvement or installation of water conservation measures, water conveyance facilities, and wells to use groundwater resources, on the condition that those activities may only be accomplished by using funding made available under the Water Assistance Program or the WaterSMART program of the Department of the Interior; and
  - (B) make available to Central Valley Project contractors a quantity of Central Valley Project surface water obtained from the activities carried out under subparagraph (A);
- (2) in coordination with the Secretary of Agriculture, enter into an agreement with the National Academy of Sciences to conduct a comprehensive study, to be completed not later than 1 year after the date of enactment of this Act, on the effectiveness and environmental impacts of saltcedar biological control efforts on increasing water supplies and improving riparian habitats of the Colorado River and its principal tributaries, in the State and elsewhere:
- (3) in coordination with the California Department of Water Resources and the California Department of Fish and Wildlife, implement offsite upstream projects in the Delta and upstream Sacramento River and San Joaquin basins that offset the effects on species listed as threatened or endangered under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) due to activities carried out pursuant this Act, [as determined by the Secretaries];
- (4) manage reverse flow in the Old and Middle Rivers as prescribed by the biological opinions issued by the United States Fish and Wildlife Service on December 15, 2008, for Delta smelt and by the National Marine Fisheries Service on June 4, 2009, for salmonids, or any successor biological opinions, to minimize water supply reductions for the Central Valley Project and the State Project, and issue guidance no later than December 31, 2015 directing their employees to take all steps necessary to manage flow in accordance with this paragraph;
- (5) as soon as practicable after the date of enactment of this Act and pursuant to existing authority available to the Secretary of the Interior, participate in, issue grants, or otherwise

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provide funding for pilot projects to increase water in reservoirs in regional river basins experiencing extreme, exceptional, or sustained drought that have a direct impact on the water supply of the State, including the Colorado River Basin, on the condition that any participation, grant, or funding by the Secretary of the Interior with respect to the Upper Division shall be with or to the respective State; and

(6) use all available scientific tools to identify any changes to real-time operations of the Bureau of Reclamation, State, and local water projects that could result in the availability of additional water supplies.

## SEC. 309. TEMPORARY OPERATIONAL FLEXIBILITY FOR FIRST FEW STORMS OF 2014-2015 WATER YEAR.

#### (a) Findings:

- During the 2014 water year, operations of the Central Valley Project and the State Water Project caused zero take of Delta smelt, and only [insert] take of salmonids, which is only [insert] percent of the incidental take level for the salmonids.
- 2) Despite the absence of any take of smelt and the very low levels of take of salmon, during and after storm events in the 2014 water year, the Central Valley Project and State Water Project never exceeded a combined pumping capacity of cubic feet per second over a 14-day average.
- As stated in Section \_\_\_\_\_, the latest scientific studies have not shown a substantiated connection between water pumping and salmon survival rates.
- 4) Hydrological conditions in dry years, such as the 2014 water year, have not triggered water pumping restrictions pursuant to the 2008 smelt biological opinion.
- 5) The Secretaries should be allowed more flexibility to increase pumping levels without causing for fish and other endangered Species or weakening other environmental protections.
- 6) Given California's severe drought conditions, significant groundwater withdrawals for irrigation due to lack of surface water supplies, and the depletion of water supplies in reservoirs, it is imperative that the Secretaries exercise the flexibility provided herein to capture the maximum amount of storm flows when and if they occur in the 2014-2015 water year, so that farms, businesses, and homes in the areas with the most severe drought risks will have an opportunity to bolster their meager supplies when water is available.
- (b) Goal. To the maximum extent possible consistent with avoiding jeopardy under the Endangered Species Act pursuant to subsection (d) and in accordance with other state and federal laws (including regulations) as described in subsection (e), the Secretaries shall authorize the Central Valley Project and the State Water Project, combined, to operate at levels that result in Old and Middle River flows at -7500 cubic feet per second for 21 cumulative days of high outflow after October 1, 2014, as described in subsection (c).
- (c) Days of high outflow. The days of high outflow described in subsection (b) shall constitute days that the California Department of Water Resources determines the daily average river flow
- 41 of the Sacramento River is at, or above, 17,000 cubic feet per second as measured at the
  - Sacramento River at Freeport gauge maintained by the United States Geologic Survey.

(d) Avoiding jeopardy. In carrying out this section, the Secretaries may continue to impose any requirements under the biological opinions during any period of high outflow if they:

(1) Demonstrate, including an explanation of the data examined and the connection between those data and the choice made, why such provisions are necessary in the short-term to avoid jeopardy after considering other alternatives, if any, that may have a lesser water supply impact; and

(2) Give great weight in any analysis of potential jeopardy to whether incidental take levels in the applicable biological opinions are likely to be exceeded by the proposed action or are on track to being exceeded by the proposed action and other actions.

#### (e) Other environmental protections.

- 1) The Secretaries' actions under this section shall be consistent with applicable regulatory requirements under state law, including State Water Resources Control Board Decision 1641, as it may be implemented in any given year, are met;
- 2) This section shall not have any effect on the applicable requirements of the salmonid biological opinion from April 1 to May 31, unless the Secretary of Commerce finds that some or all of such applicable requirements may be relaxed during this time period to provide emergency water supply relief without causing jeopardy;
- 3) During operations under this section, the Commissioner of Reclamation, in coordination with the Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife, shall undertake a monitoring program and other data gathering to insure take limits levels are not exceeded, and to identify potential actions to mitigate any impacts to species listed as threatened or endangered under the Endangered Species Act, 16 U.S.C. 1531-1544; and
- 4) The Commissioner is authorized to take any action, including the transfer of appropriated funds between accounts that, in the Commissioner's judgment, are necessary to mitigate the impacts of such operations as long as any such mitigation is consistent with the requirements off this section.

(f) Technical adjustments to target period. If, before the goal in subsection (b) is met, the Secretaries operate the Central Valley Project and the State Water Project combined at levels that result in Old and Middle River flows less negative than -7500 cubic feet per second during days of high outflow as defined in subsection (c), the duration of such operation shall not be counted toward the 21 cumulative days specified in subsection (b).

(g) Effect on running averages. For the purpose of carrying out subsection (b), the periods during which the combined operations of Central Valley Project and the State Water Project result in Old and Middle River flows more negative than -5000 cubic feet per second, and the actual flow rates during such periods, shall not be counted toward the 5-day and 14-day running averages of tidally filtered daily Old and Middle River flow requirements under the biological opinions.

(h) Level of detail required for analysis. In articulating the determinations required under this section, the Secretaries shall fully satisfy the requirements herein but shall not be expected to provide a greater level of supporting detail for the analysis than feasible to provide within the short time frame permitted for timely decision-making in response to changing conditions in the Delta.

(i) Duration. This section shall expire on September 30, 2015.

ending on the date on which the California Department of Water Resources determines that the daily average river flow of the Sacramento River is equal to or greater than 17,000 cubic feet per santanear Refundational Refundational Refundation of the California (Refundational Refundation of the California (Refundation of the California (Refu

#### SEC. 310. EXPEDITING WATER TRANSFERS.

- (a) In General.—Section 3405(a) of the Central Valley Project Improvement Act (Public Law 102–575; 106 Stat. 4709(a)) is amended—
  - (1) by redesignating paragraphs (1) through (3) as paragraphs (4) through (6), respectively;
    - (2) in the matter preceding paragraph (4) (as so designated)—
      - (A) in the first sentence, by striking "In order to" and inserting the following:
    - "(1) IN GENERAL.-In order to"; and
      - (B) in the second sentence, by striking "Except as provided herein" and inserting the following:
    - "(3) TERMS.—Except as otherwise provided in this section"; and
    - (3) by inserting before paragraph (3) (as so designated) the following:
  - "(2) EXPEDITED TRANSFER OF WATER.—The Secretary shall take all necessary actions to facilitate and expedite transfers of Central Valley Project water in accordance with—
    - "(A) this Act:

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- "(B) any other applicable provision of the reclamation laws; and
- "(C) the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).";
- (4) in paragraph (4) (as so designated)—
  - (A) in subparagraph (A), by striking "to combination" and inserting "or combination"; and
    - (B) by striking "3405(a)(2) of this title" each place it appears and inserting "(5)";
- (5) in paragraph (5) (as so designated), by adding at the end the following:
  - "(E) The contracting district from which the water is coming, the agency, or the Secretary shall determine if a written transfer proposal is complete within 45 days after the date of submission of the proposal. If the contracting district or agency or the Secretary determines that the proposal is incomplete, the district or agency or the Secretary shall state with specificity what must be added to or revised for the proposal to be complete."; and
- (6) in paragraph (6) (as so designated), by striking "3405(a)(1)(A)-(C), (E), (G), (H), (I), (L), and (M) of this title" and inserting "(A) through (C), (E), (G), (H), (I), (L), and (M) of paragraph (4)".
- (b) Conforming Amendments.—The Central Valley Project Improvement Act (Public Law

1	102-5/5) is amended—
2	(1) in section $3407(e)(1)$ (106 Stat. 4726), by striking "3405(a)(1)(C)" and inserting "3405(a)(4)(C)"; and
4 5	(2) in section 3408(i)(1) (106 Stat. 4729), by striking "3405(a)(1) (A) and (J) of this title" and inserting "subparagraphs (A) and (J) of section 3405(a)(4)"
6	SEC. 311. WARREN ACT CONTRACTS.
7	[To be supplied.]
8	SEC. 312. ADDITIONAL WARREN ACT CONTRACTS.
9	[To be supplied.]
10	TITLE IV—INCREASING WATER STORAGE
11	SEC. 401. FINDINGS.
12	Congress finds that—
13 14	(1) the record drought conditions being experienced in the State as of the date of enactment of this Act are—
15	(A) expected to recur in the future; and
16	(B) likely to do so with increasing frequency;
17 18	(2) water storage is an indispensable and integral part of any solution to address the long- term water challenges of the State;
19 20	(3) Congress authorized relevant feasibility studies for 4 water storage projects in the State, including projects for—
21 22 23	(A) enlargement of Shasta Dam in Shasta County under section 2(a) of Public Law 96–375 (94 Stat. 1506), as reaffirmed under section 103(d)(1)(A)(i)(I) of Public Law 108–361 (118 Stat. 1684);
24 25 26	(B) enlargement of Los Vaqueros Reservoir in Contra Costa County under section 215 of Public Law 108–7 (117 Stat. 147), as reaffirmed under section 103(d)(1)(A)(i)(II) of Public Law 108–361 (118 Stat. 1684);
27 28 29	(C) construction of North-of-Delta Offstream Storage (Sites Reservoir) in Colusa County under section 215 of Public Law 108–7 (117 Stat. 147), as reaffirmed under section 103(d)(1)(A)(ii)(I) of Public Law 108–361 (118 Stat. 1684); and
30 31 32 33	(D) construction of the Upper San Joaquin River storage (Temperance Flat) in Fresno and Madera Counties under section 215 of Public Law 108–7 (117 Stat. 147), as reaffirmed under section 103(d)(1)(A)(ii)(II) of Public Law 108–361 (118 Stat. 1684);
34 35	(4)(A) as of the date of enactment of this Act, it has been more than 10 years since the authorization of the feasibility studies referred to in paragraph (3); but
36	(B) complete and final feasibility studies have not been prepared for any of those water

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storage projects; 1 (5) as of August 2014, only 2 of the 4 projects referred to in paragraph (3) have 2 completed draft feasibility studies; 3 4 (6) the slow pace of work on completion of the feasibility studies for those 4 water storage projects is-5 (A) unjustified; and 6 7 (B) of deep concern; and 8 (7) there is significant public interest in, and urgency with respect to, completing all 9 feasibility studies and environmental reviews for the water storage projects referred to in 10 paragraph (3), given the critical need for that infrastructure to address the water challenges of the State. 11 SEC. 402. CALFED STORAGE FEASIBILITY STUDIES. 12 13 (a) In General.—Notwithstanding subparagraph (B)(i) of section 103(d)(1) of Public Law 108-361 (118 Stat. 1684), the Secretary of the Interior, acting through the Commissioner of 14 Reclamation (referred to in this title as the "Secretary"), shall complete a final feasibility study 15 and any other applicable environmental review documents for the project described in-16 [(1) subparagraph (A)(i)(I) of that section by not later than December 31, 2014;] 17 [(2) subparagraph (A)(ii)(I) of that section by not later than July 1, 2015; and 18 (b) Environmental Reviews.—In carrying out subsection (a), the Secretary— 19 shall ensure that— 20 21 (A) all applicable reviews, including reviews required under the National 22 Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), are completed as 23 expeditiously as practicable; and 24 (B) the shortest applicable process under that Act is used, including in the 25 completion of-26 (i) feasibility studies; 27 (ii) draft environmental impact statements; and (iii) final environmental impact statements; and 28 (2) shall not be required to complete a draft or final environmental impact statement if the 29 30 Commissioner of Reclamation determines, and the Secretary concurs, that the project fails 31 to meet applicable Federal cost-benefit requirements or standards. (c) Accountability.-32 33 (1) If the Bureau of Reclamation determines that an environmental review document for 34 the water storage projects referenced in of Section 103(d)(1) of P.L. 108-361 will not be 35 completed according to the schedule specified in subsection (a), the Bureau shall notify the

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Senate Committee on Energy and Natural Resources, the Senate Appropriations Subcommittee

Infrastructure Committee within 14 days of the determination. The notification shall include:

on Energy and Water Development, and the House of Representatives Transportation and

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(A) An explanation of the delay;	7	Formatted: Font: 16 pt, Italic
(B) The anticipated length of the delay and the revised completion date;		
(C) The steps that the Bureau will take to mitigate the delay, including, but not		
limited to, a request to reprogram existing funds appropriated to the Bureau to meet		
the revised completion deadline.		

## SEC. 403. WATER STORAGE PROJECT CONSTRUCTION.

(1) IN GENERAL. [Subject to paragraph (2),] if the Secretary fails to complete a

(b) The Bureau of Reclamation shall carry out the procedures in subsection (a) for each

feasibility study or environmental review required for any water storage project referred to

in subsection (a) in accordance with the schedule specified in that subsection, the amounts

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(a) The Secretary, acting through the Commissioner of the Bureau of Reclamation, may partner or enter into an agreement on the water storage projects identified in section 103(d)(1) of the Water Supply Reliability and Environmental Improvement Act (Public Law 108-361) (and Acts supplemental and amendatory to the Act) with local joint powers authorities formed pursuant to State law by irrigation districts and other local water districts and local governments within the applicable hydrologic region, to advance those projects.

(b) [PLACEHOLDER - AUTHORIZATION ISSUE]

subsequent delay beyond the revised completion deadline.

### SEC. 403404. OTHER STORAGE FEASIBILITY STUDIES.

(a) Definition of Qualifying Project.—In this section, the term "qualifying project" means [TO BE SUPPLIED].

#### (b) Lead Agency.-

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- (1) QUALIFYING PROJECTS WITHIN JURISDICTION OF BUREAU OF RECLAMATION.—The Bureau of Reclamation shall serve as the lead agency for purposes of coordinating all reviews, analyses, opinions, statements, permits, licenses, and other approvals or decisions required under Federal law (including regulations) to construct qualifying projects within the jurisdiction of the Bureau.
- (2) QUALIFYING PROJECTS OUTSIDE JURISDICTION OF BUREAU OF RECLAMATION.—If the site of a qualifying project is not located in a State in which the Bureau of Reclamation has jurisdiction, the Secretary shall, by not later than 45 days after the date of receipt of an application for the qualifying project-
  - (A) designate an alternate agency within the Department of the Interior to serve as the lead agency for purposes of coordinating all reviews, analyses, opinions, statements, permits, licenses, and other approvals or decisions required under Federal law (including regulations) to construct the qualifying project; or
  - (B) in consultation with the heads of other Federal departments and agencies, identify the appropriate lead agency for the qualifying project.
- (c) Cooperating Agencies .-

1 2	(1) FEDERAL DEPARTMENTS AND AGENCIES.—The lead agency designated under paragraph (1) or (2) of subsection (b) shall—
3 4 5 6	(A) as soon as practicable after receipt of an application for a qualifying project, identify any Federal department or agency that may have jurisdiction over a review, permit, license, approval, or decision required for the qualifying project under applicable Federal laws (including regulations); and
7	(B) as soon as practicable after the date of identification under subparagraph (A)—
8	(i) notify each applicable department or agency of the identification; and
9 10	<ul><li>(ii) designate the department or agency as a cooperating agency, unless the department or agency—</li></ul>
11	(I) has no jurisdiction or authority with respect to the qualifying project;
12 13 14	<ul> <li>(II) has no expertise or information relevant to the qualifying project or any review, permit, license, approval, or decision associated with the qualifying project; or</li> </ul>
15	(III) does not intend—
16	(aa) to submit comments regarding the qualifying project; or
17 18 19	(bb) to conduct any review of the qualifying project or make any decision with respect to the qualifying project in a manner other than in cooperation with the Bureau of Reclamation.
20 21 22 23	(2) STATES.—A State in which a qualifying project is proposed to be carried out may elect, consistent with Federal and State law, to participate as a cooperating agency, if the lead agency designated for the proposed qualifying project under paragraph (1) or (2) of subsection (b) determines that the applicable agency of the State—
24 25	(A) has jurisdiction over the qualifying project under applicable Federal or State law;
26	(B) is required to conduct or issue a review of the qualifying project; and
27 28	(C) is required to make a determination regarding issuing a permit, license, or approval of the qualifying project.
29	(d) Duties of Lead Agency.—
30 31 32 33	(1) IN GENERAL.—Not later than 30 days after the date of receipt of an [application for approval of] a qualifying project, the lead agency shall hold a meeting among the applicant, the lead agency, and all cooperating agencies to establish, with respect to the qualifying project, all applicable—
34	(A) requirements;
35	(B) review processes; and
36	(C) stakeholder responsibilities.
37	(2) SCHEDULE.—
38	(A) ESTABLISHMENT.—Not later than 30 days after the date of the meeting under

1 2 3	paragraph (1), the lead agency, in consultation with the attendees of the meeting, shall establish a schedule for completion of the qualifying project, taking into consideration, among other relevant factors—
4 5	<ul> <li>(i) the responsibilities of cooperating agencies under applicable laws and regulations;</li> </ul>
6 7	<ul><li>(ii) the resources available to the cooperating agencies and non-Federal project stakeholders;</li></ul>
8	(iii) the overall size and complexity of the qualifying project;
9	(iv) the overall schedule for, and cost of, the qualifying project; and
10 11	(v) the sensitivity of the natural and historic resources that may be affected by the qualifying project.
12 13	(B) REQUIREMENTS.—On establishment of a schedule for a qualifying project under subparagraph (A), the lead and cooperating agencies shall—
14	(i) to the maximum extent practicable, adhere to the schedule; and
15 16 17 18	(ii) submit to the Committee on Environment and Public Works of the Senate and the Committee on Natural Resources of the House of Representatives on a semiannual basis a report describing any delays in the schedule, including a description of—
19	(I) the reasons for the delay;
20 21	(II) the actions that the lead and cooperating agencies will take to minimize the delay; and
22	(III) a revised schedule for the qualifying project, if applicable.
23	(e) Environmental Reviews.—
24	(1) SINGLE, UNIFIED ENVIRONMENTAL REVIEW DOCUMENT.—
25 26 27 28 29	(A) IN GENERAL.—The lead agency with respect to a qualifying project, in consultation with appropriate stakeholders and cooperating agencies, shall determine whether a single, unified environmental review document relating to the qualifying project is sufficient to comply with applicable Federal laws (including regulations), including the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).
30 31 32	(B) ACTION ON DECLINATION.—If, after consultation under subparagraph (A), a lead agency determines not to adopt a single, unified environmental review document relating to a qualifying project—
33	(i) the lead agency shall—
34	(I) document the reasons for the determination; and
35	(II) submit to the Secretary a report describing those reasons; and
36 37	(ii) the Secretary may require the adoption of a single, unified document at the discretion of the Secretary, based on good cause.
38	(2) Environmental assessment.—If the lead agency with respect to a qualifying

project, in consultation with cooperating agencies, determines that an environmental 1 assessment is sufficient to comply with the requirements of this subsection and other 2 3 applicable Federal laws (including regulations)-(A) the public comment period for a draft environmental assessment shall be [ 4 5 days; and (B) the lead agency shall issue the final environmental assessment by not later than 6 days after the end of the period for public comments on the draft environmental 7 assessment. 8 9 (3) ENVIRONMENTAL IMPACT STATEMENT.—If the lead agency with respect to a qualifying project, in consultation with cooperating agencies, determines that an 10 environmental impact statement is required to comply with the requirements of this 11 subsection and other applicable Federal laws (including regulations)-12 (A) the public comment period for a draft environmental impact statement shall be 13 14 days; and 15 (B) the lead agency shall issue the final environmental impact statement by not later than [ ] days after the end of the period for public comments on the draft 16 environmental assessment. 17 18 (4) MODIFICATION OF SCHEDULE.—In carrying out paragraphs (2) and (3)— (A) the lead agency with respect to a qualifying project, in consultation with the 19 20 cooperating agencies, may modify the schedule of the qualifying project for good 21 cause; and 22 (B) on making a modification under subparagraph (B), the head of the lead agency 23 shall submit to Congress a written determination describing the cause and reasons for 24 25 (5) REQUIREMENTS.—On commencement of the environmental review process under this subsection, the lead and cooperating agencies shall, as soon as practicable— 26 27 (A) make available to all stakeholders of the qualifying project information 28 regarding-29 (i) the environmental and socioeconomic resources located within the area of 30 the qualifying project; and 31 (ii) the general locations of the alternatives under consideration; and 32 (B) identify any issues of concern regarding the potential environmental or 33 socioeconomic effects of the qualifying project, including any issues that could substantially delay or prevent an agency from granting a permit or other approval that 34 35 is needed for a study relating to the qualifying project. 36 (f) Concurrent Review Actions.— 37 IN GENERAL.—Any review, analysis, permit, license, approval, or decision regarding a qualifying project made by a Federal, State, or local government agency shall be 38 39 (A) conducted, to the maximum extent practicable, concurrently with any other

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applicable government agency; and

1	(B) incorporated in the schedule for the qualifying project under subsection (d)(2).
2 3 4 5	(2) REQUIREMENT.—The lead and cooperating agencies for a qualifying project shall formulate and implement administrative, policy, and procedural mechanisms to enable adherence to the schedule for the qualifying project in a timely, coordinated, and environmentally responsible manner.
6 7 8	(3) GUIDANCE.—The Secretary shall issue guidance regarding the use of programmatic approaches to carry out the environmental review process that, to the maximum extent practicable—
9	(A) eliminates repetitive discussions of the same issues;
10	(B) focuses on the actual issues ripe for analysis at each level of review;
11 12 13	(C) establishes a formal process for coordinating with participating and cooperating agencies, including the establishment of a list of all data required to carry out an environmental review process; and
14 15	(D) complies with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and all other applicable laws and regulations.
16	(g) Administrative Record and Data Management.—
17	(1) IN GENERAL.—The lead agency shall—
18 19	(A) be responsible for compiling the administrative record of the information used as the basis for decisions relating to a qualifying project; and
20 21 22	(B) to the maximum extent practicable and consistent with Federal law, make available all data regarding the qualifying project in a format that is accessible via electronic means for project stakeholders, cooperating agencies, and the public.
23 24 25 26	(2) REPORTS.—Not less frequently than once each year, the lead agency shall submit a progress report regarding a qualifying project to project stakeholders, cooperating agencies, the Committee on Environment and Public Works of the Senate, and the Committee on Natural Resources of the House of Representatives.
27	(h) Participation by Non-Federal Project Sponsors.—
28 29 30 31	(1) APPLICATION TO SERVE AS <u>COOPERATING</u> AGENCY.—A non-Federal sponsor of a qualifying project may submit to the lead Secretary an application to serve as <u>a cooperating</u> agency of the qualifying project for purposes of preparing any necessary documents relating to the qualifying project, including an environmental review, if—
32 33	(A) the non-Federal sponsor is a public agency as defined under the laws of the state in which the agency is located;
34	(AB) the non-Federal sponsor agrees to adhere to—
35 36	<ul><li>(i) all required Federal laws (including regulations) in carrying out the qualifying project; and</li></ul>
37 38	<ul><li>(ii) all decisions regarding the qualifying project that have been agreed on by other stakeholders of the qualifying project; and</li></ul>
39	(BC) the applicable lead agency certifies that participation by the non-Federal

sponsor will not inappropriately bias the qualifying project in favor of the non-Federal

2	sponsor.
3	(2) FUNDS.—Any funds contributed by a non-Federal sponsor to a qualifying project—
<b>4</b> 5	(A) may be accepted to maintain or accelerate progress on the qualifying project, subject to the condition that the Secretary shall—
6	(i) review the use of the funds; and
7	(ii) certify in writing that the funds—
8	(I) are used solely to complete applicable environmental reviews; and
9 10	(II) do not unduly influence any permit or approval decision regarding the qualifying project; and
11	(B) shall be applied toward the non-Federal cost-share of the qualifying project.
12 13 14 15	(i) Applicability to Calfed Storage Studies.—For any feasibility study referred to in section 401(3), this section shall apply to all activities to be carried out under the study on or after the date of enactment of this Act that would lead to congressional authorization of an applicable project for construction.
16	SEC. 404405. DAM SAFETY PROJECTS WITH INCREASED
17	STORAGE COMPONENT.
18	(a) Additional Project Benefits.—The Reclamation Safety of Dams Act of 1978 is amended—
19 20	(1) in section 3 (43 U.S.C. 507), by striking "Construction" and inserting "Except as provided in section 5B, construction"; and
21	(2) by inserting after section 5A (43 U.S.C. 509a) the following:
22	"SEC. 5B. ADDITIONAL PROJECT BENEFITS.
23 24 25	"(a) In General.—Notwithstanding section 3, subject to subsection (c), if the Secretary, in the judgment of the Secretary, makes a determination described in subsection (b), the Secretary may develop any additional project benefit—
26 27	"(1) in conjunction with the activities carried out by the Secretary pursuant to section 2; and
28	"(2) subject to the conditions described in the feasibility study relating to the project.
29 30	"(b) Description of Determination.—A determination referred to in subsection (a) is a determination by the Secretary that—
31	"(1) an additional project benefit, including additional conservation storage capacity, is—
32	"(A) necessary; and
33	"(B) in the interests of the United States; and
34	"(2) the project [benefit] proposed to be carried out is—
35	"(A) feasible; and

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1	"(B) not inconsistent with the purposes of this Act.
2	"(c) Requirements.—The costs associated with developing an additional project benefit under this section shall be—
4	"(1) allocated in accordance with the authorized purposes of the relevant project; and
5 6 7	"(2) repaid in accordance with all applicable provisions of Federal reclamation law (the Act of June 17, 1902 (32 Stat. 388, chapter 1093), and Acts supplemental to and amendatory of that Act (43 U.S.C. 371 et seq.)."
8 9	(b) San Luis Reservoir Expansion.—Section 103(f)(1)(A) of Public Law 108–361 (118 Stat. 1694) is amended—
10	(1) by striking "Funds" and inserting the following:
11	"(i) IN GENERAL.—Funds"; and
12	(2) by adding at the end the following:
13 14	"(ii) Environmental reviews and feasibility study.—The Commissioner of Reclamation shall submit [to Congress]—
15 16	"(I) an expansion draft environmental impact statement and feasibility study relating to the San Luis Reservoir by not later than April 1, 2016; and
17 18	"(II) a final environmental impact statement relating to the San Luis Reservoir by not later than December 31, 2016.".
19	SEC. 405406. UPDATING WATER OPERATIONS
20	MANUALS FOR NON-FEDERAL PROJECTS.
21	(a) Definitions.—In this section:
22	(1) Non-federal project.—
23 24 25 26	(A) IN GENERAL.—The term "non-Federal project" means a non-Federal reservoir project operated for flood control in accordance with rules prescribed by the Secretary pursuant to section 7 of the Act of December 22, 1944 (commonly known as the "Flood Control Act of 1944") (58 Stat. 890, chapter 665).
27 28	(B) EXCLUSION.—The term "non-Federal project" does not include any dam or reservoir owned by—
29	(i) the Bureau of Reclamation; or
30	(ii) the Corps of Engineers.
31	(2) OWNER.—The term "owner" with respect to a non-Federal project, does not include—
32	(A) the Secretary;
33	(B) the Secretary of the Interior; or
34 35 36	(C) the head of any other Federal department or agency, notwithstanding any Federal monetary contribution made toward the construction cost of the relevant non- Federal project, if the contribution is predicated a on flood control or other specific

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benefit.

- (3) SECRETARY.—The term "Secretary" means the Secretary of the Army.
- (b) Review by Secretary.-
  - (1) IN GENERAL.—Not later than 1 year after the date of receipt of a request from the owner of a non-Federal project, the Secretary, in consultation with the owner, shall review the water control manual and flood control rule curves and any operational or structural modifications proposed by the owner, including the use of improved weather forecasting and run-off forecasting methods, to enhance the existing purposes of the non-Federal project.
  - (2) REPORT.—Not later than 90 days after the date of completion of a review under paragraph (1), the Secretary shall submit to the owner of the applicable non-Federal project a report describing the results of the review.
  - (3) PRIORITY.—In carrying out of this subsection, the Secretary shall give priority to review and revision of water control manuals and flood control rule curves for any non-Federal project—
    - (A) that is located in a State in which a drought emergency has been declared during the 1-year period ending on the date of review by the Secretary;
    - (B) the owner of which has submitted to the Secretary a formal request to review or revise the operations manual or rule curves to accommodate new watershed data or proposed project modifications or operational changes;
    - (C) the water control manual and hydrometeorological information establishing the flood control rule curves of which have not been revised during the 20-year period ending on the date of review by the Secretary;
    - (D) with respect to which a completed probable maximum flood analysis or other data indicates that revisions of the project control manual or rule curves are likely to enhance water supply benefits and flood control operations; and
    - (E) modifications or operational changes proposed by the owner of which are likely to enhance water supply benefits and flood control operations.
  - (4) NON-FEDERAL CONTRIBUTIONS.—The Secretary may accept non-Federal funds for all or a portion of the cost of carrying out a review or revision of water control manuals and rule curves for non-Federal projects under this subsection.

#### SEC. 406407. CENTRAL VALLEY PROJECT.

- (a) Cooperative Agreements.—
  - (1) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, to determine the feasibility of an agreement for long-term use of an existing or expanded non-Federal storage or conveyance facility to augment Federal water supply, ecosystem, and operational flexibility benefits, the Secretary shall offer to enter into cooperative agreements with non-Federal entities to provide replacement water supplies for drought relief for—
    - (A) contractors of the Central Valley Project (as defined in section 3403 of the

Central Valley Project Improvement Act (Public Law 102-575; 106 Stat. 4706));

- (B) units of the National Wildlife Refuge System;
- (C) State wildlife areas; and

- (D) private wetland areas.
- (2) REQUIREMENTS.—A cooperative agreement under this subsection shall—
  - (A) include the purchase of storage capacity in non-Federal facilities from willing sellers; and
  - (B) provide reimbursement for the temporary use of available capacity in existing above-ground, off-stream storage and associated conveyance facilities owned by local water agencies.

(b) Report.—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit to the Chief of the National Wildlife Refuge System and contractors of the Central Valley Project a report describing the feasibility of the agreement for long-term use described in subsection (a)(1).

## SEC. 501. PROTECTIONS FOR STATE WATER PROJECT CONTRACTORS.

[we expect language for this critically important provision will be provided on Monday]

#### SEC. 502. AREA OF ORIGIN PROTECTIONS.

[To be supplied](a) The Secretary of the Interior (Secretary) is directed in the operation of the Central Valley Project (CVP) to adhere to California's water rights laws governing water rights priorities by honoring water rights senior to those held by the United States for operation of the CVP, regardless of the source of priority, including any appropriative water rights initiated prior to December 19, 1914, as well as water rights and other priorities perfected or to be perfected pursuant to California Water Code Part 2 of Division 2. Article 1.7 (commencing with section 1215 of Chapter 1 of Part 2 of Division 2, Sections 10505, 10505.5, 11128, 11460, 11461, 11462 and 11463, and Sections 12200 to 12220, inclusive).

(b) Any action that requires that diversions be bypassed or that involves the release of water from any CVP water storage facility taken by the Secretary or the Secretary of the Department of Commerce pursuant to Section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531, et seq.) shall be applied in a manner that is consistent with water rights priorities established by California law.

#### SEC. 503. NO REDIRECTED ADVERSE IMPACTS.

The Secretary shall ensure that, except as otherwise provided for in a water service or repayment contract, actions taken in compliance with legal obligations imposed pursuant to or as a result of this Act, including, but not limited to, such actions under the Endangered Species Act of 1973 (16 U.S.C. § 1531 et seq.) and other federal laws, shall not cause redirected adverse water supply or fiscal impacts to those within the Sacramento River Watershed or the State Water Project.

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SEC. 504. SACRAMENTO RIVER SETTLEMENT

2 CONTRACTS.

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3 [potential language under discussion]

4 SEC. 505. EFFECT ON STATE LAWS.

Nothing in this Act preempts any State law in effect on the date of enactment of this Act,

including area of origin and other water rights protections.

7 TITLE VI—MISCELLANEOUS

8 SEC. 601. AUTHORIZED SERVICE AREA.

(a) In General.—The authorized service area of the Central Valley Project authorized under the Central Valley Project Improvement Act (Public Law 102–575; 106 Stat. 4706) shall include the area within the boundaries of the Kettleman City Community Services District, California, as

in existence on the date of enactment of this Act.

(b) Long-term Contract.—

(1) IN GENERAL.—Notwithstanding the Central Valley Project Improvement Act (Public Law 102–575; 106 Stat. 4706) and subject to paragraph (2), the Secretary of the Interior, in accordance with the reclamation laws, shall enter into a long-term contract with the Kettleman City Community Services District, California, under terms and conditions mutually agreeable to the parties, for the delivery of up to 900 acre-feet of Central Valley Project water for municipal and industrial use.

(2) LIMITATION.—Central Valley Project water deliveries authorized under the contract entered into under paragraph (1) shall be limited to the minimal quantity necessary to meet the immediate needs of the Kettleman City Community Services District, California, in the event that local supplies or State Water Project allocations are insufficient to meet those needs

(c) Permit.—The Secretary shall apply for a permit with the State for a joint place of use [for water deliveries authorized under the contract entered into under subsection (b)? with respect to the expanded service area under subsection (a)?], consistent with State law.

(d) Additional Costs.—If any additional infrastructure, water treatment, or related costs are needed to implement this section, those costs shall be the responsibility of the non-Federal entity.

SEC. 602. RESCHEDULED WATER.

(a) In General.—In connection with operations of the Central Valley Project, California, if the San Luis Reservoir does not fill by the last day of February of any year, the Secretary of the Interior shall permit any entity with an agricultural water service or repayment contract for the delivery of water from the Delta Division or the San Luis Unit to reschedule into the immediately following contract year (March 1 through the last day of February) any unused Central Valley Project water previously allocated for irrigation purposes.

(b) Apportionment.—If water remaining in Federal storage in San Luis Reservoir on the last

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day of February of any year is insufficient to meet all rescheduling requests under subsection (a),

the Secretary of the Interior shall, based on contract quantity, apportion among all contractors that request to reschedule water all water remaining in San Luis Reservoir on the last day of February of the applicable year. 5 (c) Availability of Additional Water.—The Secretary shall make all reasonable efforts to make 6 available additional rescheduled water, if the efforts do not interfere with the Central Valley Project operations in the contract year for which Central Valley Project water has been 7 rescheduled. 8 SEC. 603. FISHERIES DISASTER DECLARATION. 9 [TO BE SUPPLIED.] 10 SEC. 604. OVERSIGHT BOARD FOR RESTORATION 11 FUND. 12 (a) Report; Advisory Board.—Section 3407 of the Central Valley Project Improvement Act 13 (Public Law 102-575; 106 Stat. 4726) is amended by adding at the end the following: 14 "(g) Report on Expenditure of Funds.-15 "(1) IN GENERAL.—For each fiscal year, the Secretary, in consultation with the Advisory 16 Board, shall submit to Congress a plan for the expenditure of all of the funds deposited into 17 the Restoration Fund during the preceding fiscal year. 18 19 "(2) CONTENTS.—The plan shall include an analysis of the cost-effectiveness of each expenditure. 20 21 "(h) Advisory Board.— "(1) ESTABLISHMENT.—There is established the Restoration Fund Advisory Board 22 (referred to in this section as the 'Advisory Board'), which shall be composed of 20 23 24 members appointed by the Secretary. 25 "(2) MEMBERSHIP.— 26 "(A) IN GENERAL.—The Secretary shall appoint members to the Advisory Board that represent the various Central Valley Project stakeholders, of whom-27 28 "(i) 4 members shall be agricultural users of the Central Valley Project; 29 "(ii) 3 members shall be municipal and industrial users of the Central Valley 30 Project; 31 "(iii) 3 members shall be power contractors of the Central Valley Project; "(iv) 2 members shall be contractors of the [ ] Refuge; 32 "(v) 2 members shall represent nongovernmental organizations involved in the 33 protection and restoration of California fisheries; 34

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"(vi) 1 member shall represent the commercial fishing industry;

"(vii) 1 member shall represent the recreational fishing industry;

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1	"(viii) I member shall represent the National Marine Fisheries Service;
2	"(ix) 1 member shall represent the California Fish and Wildlife Service; and
3	"(x) 2 members shall be appointed at the discretion of the Secretary.
4 5	"(B) OBSERVER.—The Secretary and the Secretary of Commerce may each designate a representative to act as an observer of the Advisory Board.
6 7	"(C) CHAIRMAN.—The Secretary shall appoint 1 of the members described in subparagraph (A) to serve as Chairman of the Advisory Board.
8	"(3) TERMS.—The term of each member of the Advisory Board shall be 4 years.
9	"(4) DUTIES.—The duties of the Advisory Board are—
10 11 12	"(A) to meet not less frequently than semiannually to develop and make recommendations to the Secretary regarding priorities and spending levels on projects and programs carried out under this title;
13 14	"(B) to ensure that any advice given or recommendation made by the Advisory Board reflects the independent judgment of the Advisory Board;
15 16	"(C) not later than December 31, 2015, and annually thereafter, to submit to the Secretary and Congress the recommendations under subparagraph (A); and
17 18 19	"(D) not later than December 31, 2015, and biennially thereafter, to submit to Congress a report that details the progress made in achieving the actions required under section 3406.
20 21	"(5) ADMINISTRATION.—With the consent of the appropriate agency head, the Advisory Board may use the facilities and services of any Federal agency.".
22	SEC. 605. JUDICIAL/ADMINISTRATIVE REVIEW.
23	[PLACEHOLDER – LANGUAGE OPTIONS ATTACHED SEPARATELY]
24	
25	SEC. 606. WATER OPERATIONS REVIEW PANEL.
26 27	(a) Establishment.—There is established a panel to be known as the "Water Operations Review Panel".
28	(b) Membership.—
29 30	(1) COMPOSITION.—The Panel shall be composed of 5 members appointed by the Secretary of the Interior, in consultation with the Secretary of Commerce, of whom—
31 32	(A) 1 member shall be a former State elected official, who shall be the Chairperson of the Panel:
33	(B) 2 members shall be fisheries biologists, of whom—
34	(i) 1 member shall have expertise in Delta smelt; and
35	(ii) 1 member shall have expertise in salmonids; and

1 (C) 2 members shall have be engineers with substantial expertise in water 2 3 (2) RECOMMENDATIONS. —The Secretary of the Interior shall consider the recommendations of the Governor of the State for the member appointed under 4 5 subparagraph (A) and the recommendations of the Collaborative Science Adaptive 6 Management Program policy group for the members appointed under subparagraphs (B) 7 and (C). (3) PROHIBITION ON FEDERAL GOVERNMENT EMPLOYMENT.—For at least three years prior 8 to appointment to the Panel, an individual appointed to the Panel under paragraph (1) shall 9 not have been an employee of the Federal Government. 10 (4) DATE OF APPOINTMENTS.—The appointment of a member of the Panel shall be made 11 12 not later than-13 (A) the date that is 120 days after the date of enactment of this Act; or 14 (B) in the case of a vacancy on the Panel described in subsection (c)(2), the date that is 120 days after the date on which the vacancy occurs. **1**5 16 (c) Term; Vacancies.— (1) TERMS.—A member of the Panel shall be appointed for a term of 3 years, except that, 17 with respect to the members first appointed under this section— 18 (A) the Chairperson shall be appointed for a term of 3 years: 19 (B) of the members appointed under subsection (b)(1)(B)— 20 (i) 1 member shall be appointed for a term of 1 year; and 21 (iii) 1 member shall be appointed for a term of 2 years; 22 (C) of the members appointed under subsection (b)(1)(C)— 23 (i) 1 member shall be appointed for a term of 1 year; and 24 (ii) 1 member shall be appointed for a term of 2 years. 25 (2) VACANCIES.-26 27 (A) IN GENERAL.—A vacancy on the Panel shall be filled in the manner in which the original appointment was made and shall be subject to any conditions that applied with 28 respect to the original appointment. 29 (B) FILLING UNEXPIRED TERM.—An individual chosen to fill a vacancy shall be 30 appointed for the unexpired term of the member replaced. 31 32 (3) EXPIRATION OF TERMS.—The term of any member shall not expire before the date on which the successor of the member takes office. 33 (d) Removal -A Member of the Panel may be removed from office by the Secretary of the 34 35 Interior. (e) Federal Advisory Committee Act. —The Panel shall not be subject to the requirements of 36

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the Federal Advisory Committee Act.

1 (f) Duties. 2 (1) Assessment and Report on Agencies' Operational Decisions under this Act.— (A) IN GENERAL.—No later than November 30, 2015, and annually no later than 3 4 November 30 thereafter, the Panel shall report an assessment of the agencies' operational decisions under this Act and recommendations for the prospective implementation of this 5 6 Act to the following Congressional committees: 7 (i) Senate Committee on Environment and Public Works: (ii) Senate Appropriations Subcommittee on Energy and Water Development: 8 9 (iii) House Natural Resources Committee: and 10 (iv) House Appropriations Subcommittee on Energy and Water Development. (B) RETROSPECTIVE ASSESSMENT.—In making the retrospective assessment under 11 paragraph (1), the Panel shall review and evaluate the Director of the Fish and Wildlife 12 Service, Administrator of NOAA Fisheries, and Commissioner of Reclamation's — 13 14 (i) decisions in implementing this Act and other Federal laws applicable to the 15 operations of the Central Valley Project and the State Water Project; (ii) compliance with the Endangered Species Act in relation to operations of the 16 Central Valley Project and the State Water Project; and 17 (iii) efforts to minimize water supply disruptions while complying with the 18 Endangered Species Act and this Act. 19 20 (C) PROSPECTIVE RECOMMENDATIONS.—The Panel shall make recommendations for 21 prospective actions and potential actions warranting further study to better achieve the purposes of this Act and the Endangered Species Act as applied to the operations of the 22 Central Valley Project and the State Water Project, including proposals— 23 (i) that in combination, both increase the population of listed species and increase 24 water supplies for the Central Valley Project and the State Water Project; 25 26 (ii) to increase the population of listed fish species with little to no adverse effects on water supplies for the Central Valley Project and the State Water Project; and 27 28 (iii) to increase such water supplies with little to no adverse effects on the population of listed fish species. 29 (2) Submission of Comments and Proposals to Panel.— 30 (A) IN GENERAL.—In preparing the reports under subsections (a) and (b), the Panel 31 shall invite comments and proposals from any interested person. 32 (B) SCHEDULE.—The Panel shall publish a schedule for receipt of comments and 33 proposals under paragraph (1), together with instructions for how to submit the comments 34 35 and proposals. 36 (f) Cooperation and Assistance .---(1) Upon request of the Panel Chairperson for information or assistance to facilitate the 37

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carrying out of this section, the Secretary of Commerce and the Secretary of the Interior

shall promptly provide such information, unless otherwise prohibited by law.

(2) Space and Assistance --- The Secretary of the Interior shall provide the Panel with
 appropriate and adequate office space, together with such equipment, office supplies, and
 communications facilities and services as may be necessary for the operation of the
 Panel, and shall provide necessary maintenance services for such offices and the
 equipment and facilities located therein.

# SEC. 607. CONTINGENCY IN EVENT OF CONTINUING RESOLUTION FOR FISCAL YEAR 2015.

If a resolution providing continuing appropriations for the Fish and Wildlife Service or the
National Marine Fisheries Service for fiscal year 2015 is enacted for any date on or after January
1, 2015, and the Secretaries have consulted with the California Department of Water Resources,
Central Valley Project and State Water Project contractors, and the Interagency Ecological
Program about any possible funding shortfall, the deadlines that apply to each respective
Secretary, or agency, contained in sections shall be extended by the number of days
such resolution providing continuing appropriations applied to each agency.

SEC. 605. SAN JOAQUIN RIVER RESTORATION SETTLEMENT.

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## OPTIONS FOR JUDICIAL AND ADMINISTRATVE REVIEW

Below are three options for judicial and administrative review under the proposal, all of which would substantially limit judicial review.

We would prefer Option 1 or Option 2, or some other option that provides limited judicial review without involving an administrative appeals process.

These options all preclude judicial review of the substance of the Secretaries' decisions or their exercise of judgment, which we believe would avoid the most burdensome types of judicial review from the agencies' standpoint. While there would be no adjudicatory review of the Secretaries' substantive decisions under the Act, the Water Operations Review Panel described in Section 606 would review these decisions and annually report to Congress.

## Option 1

SEC. 605. JUDICIAL REVIEW.

Judicial review of any final agency action under this Act shall be limited to whether the Secretary's decision was based on a consideration of the relevant factors prescribed by this Act and whether the Secretary proceeded in a manner consistent with this Act.

## **Option 2**

SEC. 605. JUDICIAL REVIEW.

Judicial review of any final agency action under this Act shall be limited to review under 5 U.S.C. section 706(b)(2)(D).

[For your reference, the following is the text of section 706:

To the extent necessary to decision and when presented, the reviewing court shall decide all relevant questions of law, interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of an agency action. The reviewing court shall—

(1) compel agency action unlawfully withheld or unreasonably delayed; and

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- (2) hold unlawful and set aside agency action, findings, and conclusions found to be—
  - (A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;
    - (B) contrary to constitutional right, power, privilege, or immunity;
  - **(C)** in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;
    - (D) without observance of procedure required by law;
    - **(E)** unsupported by substantial evidence in a case subject to sections <u>556</u> and <u>557</u> of this title or otherwise reviewed on the record of an agency hearing provided by statute; or
  - **(F)** unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court.

In making the foregoing determinations, the court shall review the whole record or those parts of it cited by a party, and due account shall be taken of the rule of prejudicial error.]

## **Option 3**

## SEC. 605. ADMINISTRATIVE AND JUDICIAL REVIEW.

- a) Administrative review. ---- Notwithstanding any other provision of law, any person alleging the failure of the either the Secretary of Commerce or the Secretary of the Interior to comply with the procedural obligations established in the following sections of this Act \_\_\_\_\_ shall be entitled to a determination on the record, solely on the disputed issue of whether the Secretary failed to comply with the procedural obligations established in such sections. If the reviewing official determines that the relevant Secretary failed to comply with such procedural obligation, the Secretary shall take such action as is necessary to achieve compliance.
- b) Limited judicial review.--- The failure of the Secretary to take the action necessary to comply with a procedural obligation after receiving a reviewing official's determination shall be deemed final agency action under the Administrative Procedure Act, and shall be the sole judicial review under this Act.

From: Watts, John (Feinstein)

Sent: Saturday, August 23, 2014 8:07 AM

To: 'DBernhardt@BHFS.com'

**CC:** 'tbirmingham@westlandswater.org'

Subject: Would you be willing to brainstorm with Will Stelle

On the appropriate legal standard for evaluating specific operational decisions under the ESA for the CA water projects (including whether jeopardy or some concept related to jeopardy is the standard and how to make the standard workable)?

My concern about this issue right now is that the agencies have a very different perspective from the water districts, and we need to establish some framework where we are working together rather than simply fighting over it. On such a difficult issue, one way to try to come up with a common framework is to get the best minds with real expertise from different perspectives to brainstorm on it. I think it would be helpful to do that soon, possibly over this weekend, since the agencies are coming up with their proposed language by Tuesday.

Would it be OK with you if I emailed Will and asked him to brainstorm with you on this issue at some time consistent with this schedule, and gave him your cell and bb contact info? If so, are there specific blocks of time that you are not available?

Thanks,

John

From: Watts, John (Feinstein)

Sent: Sunday, August 24, 2014 3:10 PM

**To:** 'Tom Birmingham' **CC:** Bernhardt, David L.

Subject: FW: For when you have time: response on the question of whether there has been a precipitous drop in

water supplies under the current BiOps

**Attachments:** 2014-01-28 CVO Updated Pumping Table 1976-2013.docx

fyi

From: Watts, John (Feinstein)

**Sent:** Sunday, August 24, 2014 6:10 PM

**To:** Connor, Michael (michael\_connor@ios.doi.gov) **Cc:** John Bezdek (John\_Bezdek@ios.doi.gov)

**Subject:** For when you have time: response on the question of whether there has been a precipitous drop in water

supplies under the current BiOps

Mike,

I greatly appreciate all the effort you and your team are making to try to see if we can work something out on the water bill. I want to respond to your email below but don't want it to be a distraction, so please feel no need to pay any attention to this until you have time.

First, I want to acknowledge that you are right that the last 8 years have had below-average precipitation. Thanks for correcting me on this point.

I believe, however, that the very table you sent me (and which I have reattached) makes my case that there has been a precipitous drop in water supplies since the most recent biological opinions were issued. The table is quite helpful because it allows comparison of water supplies for the same hydrologic year types before and after the biological opinions came into effect. Such an evaluation is quite revealing:

- The two "dry" years since 2009 (2009 and 2013) have had an average south-of-Delta agricultural allocation of 15%, whereas the three dry years in the previous decade (2001, 2002, and 2007) had an average 56% south-of-Delta agricultural allocation. That is a dramatic difference -- dry-year allocations before the BiOps were issued were nearly four times greater than what they have been since. [Note that the south of Delta ag allocation in 2013 was 20% and not 75%].
- The two "below normal" years since 2009 (2010 and 2012) had an average south-of-Delta agricultural allocation of 42.5%, whereas the below normal year in the previous decade (2004) had a south-of-Delta allocation of 70%. That too is a dramatic difference.
- If you compare these years based on total CVP and SWP Delta pumping rather than south-of-Delta ag allocations, the differences here are striking as well.
- Average total Delta pumping in the three dry years prior to issuance of the BiOps was 5.42 maf (39% higher than the 3.89 maf average for the dry years after the BiOps were issued).
- Total Delta pumping in the below-normal year prior to issuance of the BiOps was 6.07 maf (27% higher than the 4.78 maf average for the below-normal years after the BiOps were issued).

As I read it, the dramatic differences between water supplies before and after the issuance of the recent biological opinions for the same hydrologic year types confirm that a precipitous drop in water supplies has occurred. I agree that

as you say, the picture is always more complicated, that the pelagic fisheries have significantly declined, and a case could certainly be made that the pendulum had swung too far the other way during the years prior to the issuance of the BiOps.

But in all fairness, I think it has to be acknowledged that under the current biological opinions there has been a precipitous drop in water supplies for certain users, particularly south-of-Delta agriculture (and also, to a considerable degree, the State Water Project). I think this fact supports the central premise of Senator Feinstein's legislative proposal, that it is very worthwhile to put measures into place to explore whether incrementally more water can be made available while 1) protecting the species, 2) respecting the Secretaries' ability to interpret the latest science, and 3) working with the current biological opinions as informed by that updated science.

Best,

John

From: Connor, Michael [mailto:michael connor@ios.doi.gov]

Sent: Wednesday, August 20, 2014 4:24 PM

**To:** Watts, John (Feinstein)

Subject: Re: We need your response this week on the bottomline for the water language

John - thanks for the note. I appreciate the incredibly hard-work that all of you have put in to develop a legislative package that addresses this difficult drought. I returned to the office yesterday and immediately convened a senior-level group from NOAA and DOI to talk through the proposed legislation, our Administration comments, and the prospects for a bottomline response being developed in a timely manner. We're working on something, but it will take a little bit more time to flesh out than the timing you've contemplated. I'm hoping that we might be able to have a follow-up call with you early next week (e.g. Monday or Tuesday). Some of the factors associated with the timing are that right now, key staff and senior leaders are in CA working on the critical BDCP issues associated with finalizing a proposed Plan that addresses the ongoing issues associated with potentially permitting the Plan. Also, in addition to fleshing out a concept among ourselves, we'll need to engage in some due diligence with others in the Administration to make sure we're not too far ahead of others. Not that you need to know these details but I just want to assure both you and Senator Feinstein that we are taking this task seriously.

I'm happy to talk with you regarding some of the concepts we're thinking through. Please keep in mind, though, that our work is still preliminary and I'm not sure that even our high-level team is yet 100% on the same page. This is very much a work in progress.

One other item I wanted to discuss. You've referenced several times that one of the concerns driving the need for legislation is the precipitous drop in water supplies notwithstanding that since 2007, there has been substantial precipitation in 6 of the last 8 years. I don't see it that way. Attached is Reclamation's record of total annual pumping that shows the water year type according to our official hydrologic index. Including the years 2007-2014, 7 out of the last 8 years have been below normal or worse (including 3 dry years and 2 critically dry years). By comparison, in the previous 10 years (1997-2006), precipitation in 7 of those years was above normal or higher. That doesn't preclude the need for action from my perspective but it does demonstrate that a substantial part of the reduced water supply is due to lower levels of precipitation and hydrology. I'm very sensitive to the narrative that some try and put out there (not you), that all of CA's water supply issues are the result of the ESA. There's a lot more going on.

Look forward to hearing from you.

Mike

On Sun, Aug 17, 2014 at 10:25 AM, Watts, John (Feinstein) < <u>John\_Watts@feinstein.senate.gov</u>> wrote: Mike.

When we discussed the draft water language a week ago Friday, I asked you for the bottomline on what the Administration could accept and a roadmap on what would have to be changed and how for you to be able to live with the proposal. You said it was a reasonable request but you didn't have an answer yet.

We need that bottomline response this week if we are going to have any chance to work out an agreement in the three weeks left before Congress returns. While CEQ is setting up calls for our office this week with the FWS, NMFS, and BOR policy and legal teams, we will not get ANYWHERE on those calls without high-level direction on a bottomline that you can accept. It is critical to work something out given the urgency of the California drought and water supply shortfall and the opportunity of having Senate and House-passed bills.

We write this in great appreciation for you and your longstanding leadership on this issue. The Senator may be contacting you, and I am happy to talk anytime as well.

Best, John

202-669-2099 cell 202-224-7261 office direct

Michael L. Connor, Deputy Secretary U.S. Department of the Interior 202-208-6291

Total Annual Pumping at Banks, Jones, and Contra Costa Pumping Plants 1976-2013 (MAF)

	Hydrologi c		Bank s			Jone s		Contr a	CVP Total	SWP Total	CVP	Shast a
	Index	SWP	CVP	Total	SWP	CVP	Total	Costa	Delta	Delta	SOD-Ag	Index
WY	40-30-30								Pumping	Pumping	Allocatio n	Critic al
1976	С	1.82	0.00	1.82	0.00	3.01	3.01	N/A	3.01	1.82	100%	
1977	С	0.76	0.04	0.80	0.00	1.28	1.28	0.09	1.41	0.76	25%	С
1978	AN	2.01	0.04	2.05	0.00	2.26	2.26	80.0	2.38	2.01	100%	
1979	BN	1.76	0.23	1.98	0.00	2.30	2.30	0.09	2.61	1.76	100%	
1980	AN	2.17	0.34	2.52	0.00	2.00	2.00	0.09	2.43	2.17	100%	
1981	D	1.97	0.10	2.07	0.00	2.60	2.60	0.11	2.80	1.97	100%	
1982	W	2.43	0.20	2.63	0.00	1.97	1.97	0.08	2.25	2.43	100%	
1983	W	1.76	0.13	1.89	0.00	2.51	2.51	0.08	2.72	1.76	100%	
1984	W	1.40	0.25	1.65	0.00	2.19	2.19	0.10	2.54	1.40	100%	
1985	D	2.16	0.53	2.68	0.00	2.79	2.79	0.11	3.43	2.16	100%	
1986	W	2.46	0.21	2.67	0.00	2.62	2.62	0.11	2.94	2.46	100%	
1987	D	2.01	0.27	2.28	0.00	2.76	2.76	0.13	3.16	2.01	100%	
1988	С	2.32	0.38	2.71	0.00	2.90	2.90	0.14	3.42	2.32	100%	
1989	D	2.70	0.39	3.10	0.00	2.87	2.87	0.13	3.40	2.70	100%	
1990	С	2.86	0.24	3.10	0.00	2.70	2.70	0.14	3.07	2.86	50%	
1991	С	1.64	0.14	1.78	0.00	1.41	1.41	0.11	1.65	1.64	25%	С
1992	С	1.53	0.04	1.57	0.00	1.34	1.34	0.10	1.48	1.53	25%	С
1993	AN	2.53	0.02	2.55	0.00	2.11	2.11	0.10	2.22	2.53	50%	
1994	С	1.73	0.24	1.97	0.00	2.02	2.02	0.11	2.37	1.73	35%	С
1995	W	2.48	0.03	2.50	0.00	2.58	2.58	0.09	2.70	2.48	100%	
1996	W	2.60	0.01	2.61	0.06	2.57	2.63	0.10	2.68	2.66	95%	
1997	W	2.12	0.34	2.46	0.00	2.51	2.51	0.11	2.96	2.12	90%	
1998	W	2.07	0.04	2.11	0.01	2.46	2.47	0.16	2.66	2.09	100%	
1999	W	2.37	0.04	2.41	0.00	2.26	2.26	0.13	2.44	2.37	70%	
2000	AN	3.45	0.22	3.66	0.00	2.49	2.49	0.13	2.83	3.45	65%	
2001	D	2.37	0.23	2.60	0.01	2.32	2.33	0.10	2.66	2.38	49%	
2002	D	2.70	0.17	2.87	0.00	2.50	2.50	0.12	2.79	2.70	70%	
2003	AN	3.39	0.04	3.43	0.00	2.68	2.68	0.14	2.86	3.39	75%	
2004	BN	3.14	0.09	3.23	0.00	2.72	2.72	0.12	2.93	3.14	70%	
2005	AN	3.58	0.03	3.61	0.00	2.68	2.68	0.12	2.83	3.58	85%	
2006	W	3.50	0.01	3.51	0.00	2.62	2.62	0.12	2.74	3.50	100%	
2007	D	2.82	0.11	2.93	0.00	2.67	2.67	0.11	2.90	2.82	50%	
2008	С	1.48	0.02	1.50	0.00	1.99	1.99	0.13	2.15	1.48	40%	
2009	D	1.49	0.12	1.61	0.00	1.86	1.86	0.11	2.09	1.49	10%	
2010	BN	2.39	0.08	2.47	0.00	2.12	2.12	0.09	2.29	2.39	45%	
2011	W	3.96	0.02	3.98	0.00	2.54	2.54	0.06	2.63	3.96	80%	
2012	BN	2.60	0.03	2.63	0.00	2.07	2.07	0.17	2.27	2.60	40%	
2013	D	2.16	.04	2.20		1.84	1.84	0.15	2.03	2.16	75%	

## Total Annual Pumping at Banks, Jones, and Contra Costa Pumping Plants 1976-2013 (MAF)

	Hydrologi c	Bank s		Jone s		Contr a	CVP Total	SWP Total	CVP	Shast a		
	Index	SWP	CVP	Total	SWP	CVP	Total	Costa	Delta	Delta	SOD-Ag	Index
WY	40-30-30								Pumping	Pumping	Allocatio n	Critic al
					0.00							

From: Watts, John (Feinstein)

Sent: Monday, August 25, 2014 9:27 AM

To: 'Tom Birmingham'
CC: Bernhardt, David L.
Subject: FW: SWP protection

Tom, Are you agreeable to this language?

John

**From:** Patterson,Roger K [mailto:RPatterson@mwdh2o.com]

**Sent:** Monday, August 25, 2014 12:27 PM

To: Watts, John (Feinstein)

**Cc:** Tom Birmingham (tbirmingham@westlandswater.org)

Subject: SWP protection

John – revised proposed language developed with the State Water Contractors:

The Central Valley Project and the State Water Project shall share equally, unless otherwise specified in the Coordinated Operations Agreement, any water supply benefits provided by this Act; and to the extent the State Water Project cannot divert its share due to its compliance with the California Endangered Species Act, the Secretary shall provide to the State Water Project a water supply benefit equivalent to its equal share of water provided by this Act.

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From: Burman, Brenda W

Sent: Monday, August 25, 2014 3:20 PM

**To:** Watts, John (Feinstein); 'Tom Birmingham'; Patterson, Roger K

CC: Bernhardt, David L.

Subject: RE: Confidential -- revised draft language in redline showing changes

Attachments: revised text 082514 (3) 615p.docx

John, I haven't been able to get Brad's comments on the salmon and invasive sections yet, but here are some edits (and blanks filled-in).

From: Watts, John (Feinstein) [mailto:John\_Watts@feinstein.senate.gov]

**Sent:** Friday, August 22, 2014 5:24 PM **To:** 'Tom Birmingham'; Patterson,Roger K **Cc:** Bernhardt, David L.; Burman,Brenda W

**Subject:** Confidential -- revised draft language in redline showing changes

Hi all. I am sharing this simultaneously and confidentially with the Administration team, Kiel Weaver, and Senator Boxer's staff. Mike Connor told Senator Feinstein today that his team is working to get us revised language with the Administration's bottomline on Tuesday.

I think you should be mostly familiar with the proposed changes in the redline, but feel free to ping me with any questions.

Have a good weekend. Next week is a key week.

John

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1 Title: To provide drought relief in the State of California, and for other purposes.

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Be it enacted by the Senate and House of Representatives of the United States of America in

5 Congress assembled,

#### 6 SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

- 7 (a) Short Title.—This Act may be cited as the "California Drought Relief Act of 2014".
- 8 (b) Table of Contents.—The table of contents of this Act is as follows:
- 9 Sec.1.Short title; table of contents.
- 10 Sec.2.Findings.
- 11 Sec. 23. Definitions.
- 12 TITLE I—ADJUSTING DELTA SMELT MANAGEMENT
- 13 BASED ON INCREASED REAL-TIME MONITORING AND
- 14 UPDATED SCIENCE
- 15 Sec. 101. Findings.
- 16 Sec. 1012. Definitions.
- 17 Sec. 1023. Revise incidental take level calculation to reflect new science.
- 18 Sec.1034.Factoring increased real-time monitoring and updated science into delta smelt
- 19 management.
- 20 TITLE II—ENSURING SALMONID MANAGEMENT IS
- 21 RESPONSIVE TO NEW SCIENCE
- 22 Sec.201.Findings.
- 23 Sec. 202201. Definitions.
- 24 Sec. 203 202. Required scientific studies.
- 25 Sec. 204203. Process for ensuring salmonid management is responsive to new science.
- 26 Sec. 205204. Nonnative reduction pilot program in the Delta and tributaries Pilot program to
- 27 protect native anadramous fish in the Stanislaus River.
- 28 Sec. 206205. Mark fishery and harvest management CALFED invasive species pilot projects in the
- 29 Sacramento-San Joaquin Bay Delta and its tributaries.
- 30 Sec. 207206. Mark fishery and harvest management.
- 31 Sec. 207. New actions to benefit Central Valley salmonids.
- 32 TITLE III—OPERATIONAL FLEXIBILITY AND DROUGHT

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#### RELIEF

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- 2 Sec.301.Findings.
- 3 Sec.302.Definitions.
- 4 Sec.303.Operational flexibility in times of drought.
- 5 Sec.304.Operation of cross-channel gates.
- 6 Sec.305.Flexibility for export/inflow ratio.
- 7 Sec.306.Emergency environmental reviews.
- 8 Sec.307.Prioritizing State revolving funds during droughts.
- 9 Sec.308.Increased flexibility for regular project operations.
- 10 Sec.309. Temporary operational flexibility for first few storms of 2014-2015 water year.
- 11 Sec.310.Expediting water transfers.
- 12 Sec.311.Warren Act contracts.
- 13 Sec.312.Additional Warren Act contracts.

#### 14 TITLE IV—INCREASING WATER STORAGE

- 15 Sec. 401. Findings.
- 16 Sec.402.Calfed storage feasibility studies.
- 17 Sec. 403. Water storage project construction.
- 18 Sec. 403 404. Other storage feasibility studies.
- 19 Sec. 404405. Dam safety projects with increased storage component.
- 20 Sec. 405 406. Updating water operations manuals for non-Federal projects.
- 21 Sec. 406 407. Central Valley Project.

#### 22 TITLE V—WATER RIGHTS PROTECTIONS

- 23 Sec.501.Protections for State water project contractors.
- 24 Sec.502. Area of origin protections.
- 25 Sec.503.No redirected adverse impacts.
- 26 Sec.50543.Effect on State laws.

#### 27 TITLE VI—MISCELLANEOUS

- 28 Sec.601. Authorized service area.
- 29 Sec.602.Rescheduled water.
- 30 Sec.603.Fisheries disaster declaration.
- 31 Sec.604.Oversight board for Restoration Fund.

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2 Sec.605. Judicial review. [placeholder, options attached separately]

Sec.606.Water operations review panel.

Sec.607. Contingency in event of continuing resolution for fiscal year 2015.

#### Congress finds that-

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(1) The 2008 smelt biological opinion and 2009 salmon biological opinion contain reasonable and prudent alternatives to protect endangered fish species from being harmed by operation of the Central Valley Project and State Water Project.

(2) These reasonable and prudent alternatives in the biological opinions restrict the amount of water pumping that can occur to deliver water for agricultural, municipal, industrial, groundwater, and refuge uses within the Central Valley of California.

(3) Data on the difference between water demand and reliable water supplies for various regions south of the delta, including the San Joaquin Valley, indicate there is a significant annual gap between reliable water supplies to meet agricultural, municipal and industrial, groundwater, and refuges water needs within the South of Delta and Friant Division of the Central Valley Project and the State Water Project south of the Sacramento-San Joaquin River Delta and north of the Tehachapi mountain range and the demands of those areas. This gap varies depending on the methodology of the analysis performed, but can include representation in the following ways:

(a) For Central Valley Project South-of-Delta water service contractors, if it is assumed that a water supply deficit is the difference in the amount of water available for allocation versus the maximum contract quantity, particularly in more recent years, then the water supply deficits that have developed from 1992 to 2014 as a result of changes besides natural variations in hydrology during this timeframe range between 720,000 and 1,100,000 acre-feet.

(b) For Central Valley Project and State Water Project water service contractors south of the Delta and north of the Tehachapi mountain range, if it is assumed that a water supply deficit is the difference between reliable water supplies, including maximum water contract deliveries, safe yield of groundwater, safe yield of local and surface supplies and long-term contracted water transfers, and water demands, including water demands from agriculture, municipal and industrial and refuge contractors, then the water supply deficit ranges between approximately 2.500.000 to 2.700.000 acre-feet.

(c) State's analysis (pending information from DWR, ETA early week of 8/25)

(4) Since the issuance of the biological opinions, considerably uncertainty still exists about the benefits to endangered fish populations from water pumping restrictions. For example, hydrodynamic data, acoustic telemetry studies, and other recent studies found that through-Delta survival rates of salmonid species do not correlate directly and clearly with certain water pumping restrictions, in particular limitations to Old and Middle River flows to levels less negative than -5000 cubic feet per second.

(5) Data of pumping activities at the Central Valley Project and State Water Project delta

Commented [PS1]: Reclamation s analysis for CVP contractors South of Delta, not including San Felipe, using 1992 as a baseline and excluding this water year.

Commented [PS2]: Our analysis, excluding this water year.

pumps identifies that, on average from 2008 to 2014, pumping activity takes 893 delta smelt annually with an authorized take level of 5,003 delta smelt annually – according to the biological opinion issued December 15, 2008.

(6) It is worth exploring whether there is a way to implement the biological opinions that would preserve the protections afforded endangered fish and simultaneously increase water deliveries to the Central Valley Project and State Water Project without weakening environmental laws or protections.

(7) In 2014, better information exists than was known in 2008 concerning conditions and operations that may or may not lead to high salvage events that jeopardize the fish populations, and what alternative management actions can be taken to avoid jeopardy.

(8) Alternative management strategies, such as trapping and barging juvenile salmon through the Delta, removing non-native species, enhancing habitat, and monitoring fish movement and location in real-time can contribute significantly to protecting and recovering these endangered fish species, and at potentially lower costs to water supplies.

Congress finds that

#### SEC. 23. DEFINITIONS.

In this Act:

- (1) DELTA.—The term "Delta" means the Sacramento-San Joaquin Delta and the Suisun Marsh, as defined in sections 12220 and 29101 of the California Public Resources Code.
  - (2) OMR.—The term "OMR" means the Old and Middle River in the Delta.
- (3) OMR FLOW OF -5000 CFS.—The term "OMR flow of -5000 cfs" means Old and Middle River flow of negative 5,000 cubic feet per second as measured by—
  - (A) the smelt biological opinion; and
  - (B) the salmonid biological opinion.
- (4) SALMONID BIOLOGICAL OPINION.—The term "salmonid biological opinion" means the biological opinion issued by the National Marine Fisheries Service on June 4, 2009.
- (5) SMELT BIOLOGICAL OPINION.—The term "smelt biological opinion" means the biological opinion on the Long-Term Operational Criteria and Plan for coordination of the Central Valley Project and State Water Project issued by the United States Fish and Wildlife Service on December 15, 2008.
  - (6) STATE.—The term "State" means the State of California.
- (7) TO AVOID JEOPARDY.—The term "to avoid jeopardy" means to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.

#### TITLE I—ADJUSTING DELTA SMELT MANAGEMENT

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# BASED ON INCREASED REAL-TIME MONITORING AND UPDATED SCIENCE

#### SEC. 101. FINDINGS.

	-	thic	
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- (1) DIRECTOR.—The term "Director" means the Director of the United States Fish and Wildlife Service.
- (2) DELTA SMELT.—The term "delta smelt" means the fish species with the scientific name Hypomesus transpacificus.
  - (3) SECRETARY.—The term "Secretary" means the Secretary of the Interior.

# SEC. 103102. REVISE INCIDENTAL TAKE LEVEL CALCULATION TO REFLECT NEW SCIENCE.

- (a) In General.—Not later than October 1, 2015, consistent with the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) (including regulations) and subsection (b), the Director shall modify the method of calculating the incidental take level in the smelt biological opinion—
  - (1) to use the best salvage information available from 1993 to 2012;
  - (2) to take into account—
    - (A) updated statistical models;
    - (B) updated scientific data; and
    - (C) improved understanding of Delta smelt entrainment dynamics; and
  - (3) to better represent actual entrainment and the population level impact of entrainment while allowing operations according to the reasonable and prudent alternatives described in the smelt biological opinion.
- (b) Modified Incidental Take Level.—Unless the Director determines in writing that all or part of the requirements described in paragraphs (1) through (4) are not appropriate, the modified incidental take level described in subsection (a) shall—
  - (1) be normalized for the abundance of prespawning adult Delta smelt using the Fall Midwater Trawl Index or other index;
  - (2) be based on a simulation of the salvage that would have occurred from 1993 through 2012 if OMR flow had been consistent with the smelt biological opinion;
  - (3) base that simulation on a correlation between annual salvage rates and historic water clarity and OMR flow during the adult salvage period; and
  - (4) set the incidental take level as the 80 percent upper prediction interval derived from simulated salvage rates from 1993 through 2012.

# SEC. 104103. FACTORING INCREASED REAL-TIME

### MONITORING AND UPDATED SCIENCE INTO DELTA

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#### SMELT MANAGEMENT.

- (a) In General.—The reasonable and prudent alternatives described in the smelt biological opinion shall be implemented consistent with the best scientific and commercial data available.
- (b) Increased Monitoring to Inform Real-time Operations.—Effective during the period beginning on December 1, 2014 and ending March 31, 2015, and in each successive December through March period, if high suspended sediment loads enter the Delta from the Sacramento River and appear likely to raise turbidity levels in Old River north of the export pumps from values below 12 Nephelometric Turbidity Units to values above 12 Nephelometric Turbidity Units, the Director shall—
  - (1) conduct daily Kodiak Trawls in Old River in the vicinity of Station 902 to detect adult Delta smelt that might be moving within the turbidity cloud toward the export pumps; and
  - (2) use results from those trawls to help determine how increased trawling can inform in real-time what levels of exports can be pumped without risk of a large smelt salvage eventthe maximum rates of exports without risk of causing jeopardy.
  - (c) Periodic Review of Monitoring.—At least once every 5 years, the Director shall—
    - (1) evaluate whether the monitoring program under subsection (b), combined with other monitoring programs for the Delta, is providing sufficient data to inform operations; and
    - (2) determine whether the monitoring efforts should be changed in the short- or long-term to provide more useful data.
  - (d) Delta Smelt Distribution Study.-
    - (1) IN GENERAL.—In 2015, and every five years thereafter, the United States Fish and Wildlife Service shall perform targeted sampling studies and monitoring to determine the geographic areas and types of habitat occupied by delta smelt during all life stages.
      - (2) SAMPLING.—The sampling—
        - (A) shall include recording water quality and tidal data;
        - (B) should generally occur in areas not routinely sampled by existing monitoring programs, including wetland channels, near-shore water, depths below 35 feet, and shallow-water; and
          - (C) may require sampling gears not used during existing monitoring programs.
- (e) Scientifically Supported Implementation of Old and Middle River Flow Requirements.— Effective beginning December 1, 2014, in managing negative flow in the Old and Middle Rivers from December to June within the range established by the smelt biological opinion or any successor biological opinion, the Secretary shall—
  - consider the relevant provisions of the biological opinion or any successor opinion;
  - (2) document any significant facts about real-time conditions relevant to the determinations of the Secretary of rates at which reverse OMR flow will be managed, including—
    - (A) whether targeted real-time fish monitoring in Old River in the vicinity of Bacon Island pursuant to this section indicates that a significant increase in the salvage of

Delta smelt is imminent; and 1 2 (B) whether near-term forecasts with available salvage models show under prevailing conditions that OMR flow of -5000 cfs will cause substantially increased 3 take of delta smelt; and 4 (3) document— 5 (A) the basis for the determination of the Secretary to require raised or lowered 6 7 OMR flow level within the range established by the smelt biological opinion or any 8 successor biological opinion, including an explanation of the data examined and the 9 connection between the data and the choice made; and (B) a showing that any limitation of OMR flow to levels less negative than -5000 10 cubic feet per second in the short-term is necessary to avoid jeopardy after considering 11 other alternatives, if any, that may have a lesser water supply impact. In making any 12 such showing, the Secretary shall consider the effects of managing negative flow in 13 Old and Middle River flow consistent with the definition of "effects of the action" 14 contained at 50 C.F.R. Part 402.02 and the definitions included in this title 15 16 (f) Level of Detail Required for Analysis.—In documenting the determinations under **17** subsection (e), the Secretary shall fully satisfy the requirements of paragraphs (1) through (3) of 18 subsection (e) but is not required to provide a greater level of supporting detail for the analysis 19 than feasible to provide within the short time frame permitted for timely decisionmaking in 20 response to changing conditions in the Delta. Written determinations by the Secretary under subsection (e) and the 21 (g) Judicial Review. calculation of a revised incidental take limit under section 103 shall constitute final agency 22 23 netions. SEC. 201. FINDINGS. 24 25 26 27 28 29

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Commented [BW4]: Can we avoid legislating the regulations? What happens if they change? They are already inherent.

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(C) only 1 steelhead tagging study report has been published, which

(i) showed that steelhood smolt survival was considerably better than for Chinools solmon, but

(ii) did not show that Control Valley Project and State Water Project operations had an effect on survival in the larger Delta:

(5) Dolta hydrodynamic analyses and other fish tagging studies conducted near the date of enactment of this Act affirm acoustic telemetry study findings:

(6) analysis conducted near the date of enactment of this Act of the manner in which South Delta exports and San Joaquin River inflows impact water velocities in the Delta show that the magnitude and geographic range of export effects is significantly less than was presumed in the 2009 biological opinion:

(7) analyses published near the date of enactment of this Act

(A) demonstrate that proportional loss of Sacramento Basin juvenile salmonids to export pumping is on average less than 1 percent; and

(B) suggests proportional loss will remain low with Old and Middle River flow levels no more negative than 5000 cubic feet per second:

(8) these significant studies demonstrate that science on 3 fronts (juvenile salmonid survival, Delta hydrodynamics, and proportional entrainment) yields complimentary and consistent results, suggesting that

(A) export restrictions associated with inflow and export requirements and limitations and Old and Middle River flow are not substantially increasing survival rates for salmonids listed under the Endangered Species Act of 1978 (16 U.S.C. 1531 et seq.); and

(B) despite substantially decreased water diversions, through Delta juvenile

(9) this title requires additional studies during 2015 to further analyze the effects of export restrictions on juvenile salmonid survival rates;

(10) the last of suitable juvenile salmon habitat and apparently high prodution rates from nonnative and invasive fish species present severe challenges to juvenile salmonide outmigrating through the Delta:

(11) restoration of salmonid populations may not be possible where the juvenile species have a poor probability of surviving outmigration;

(12) this title requires pilet studies in 2015 of whether trap and barge operations in the Delta would, if fully implemented, raise the survival rates of outmigrating salmonid juveniles to the 54 to 96 percent range seen in similar operations on the Columbia Rivery and

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(B) alternative, non-water consumptive actions cannot provide benefits equal to or greater than water expert related reasonable and prudent alternatives found in the salmonid biological epinion issued by the National Marine Fisheries Service on June 4, 2009.

### SEC. 2012. DEFINITIONS.

8 In this title:

- (1) DASSISTANT ADMINISTRATOR IRECTOR.—The term "Director Assistant Administrator" means the Assistant Administrator of NOAA Fisheries. Director of the National Marine Fisheries Service.
- (2) LISTED SALMONID SPECIES.—The term "listed salmonid species" means natural origin steelhead, natural origin genetic spring run Chinook, and genetic winter run salmon smolts.
  - (3) SECRETARY.—The term "Secretary" means the Secretary of Commerce.

#### SEC. 203202. REQUIRED SCIENTIFIC STUDIES.

- (a) Trap and Barge Pilot Project to Increase Survival Through the Delta.—Not later than March 1, 2015, the Director, in collaboration with the Director of the California Department of Fish and Wildlife, shall issue necessary permits and otherwise facilitate—
  - (1) implementing a pilot program to trap juvenile listed salmonids species emigrating from the San Joaquin River basin and provide for the safe passage of the listed salmonid species by barge to the Western Delta; and
    - (2) conducting studies to evaluate the effectiveness of the pilot program.
  - (b) Enhanced Steelhead Study.—
    - (1) IN GENERAL.—Not later than December 31, 2015, the Director, in collaboration with the Director of the California Department of Fish and Wildlife, California public water agencies, and scientific investigators, shall report results of an expanded 6-year steelhead study specified in the salmonid biological opinion.
    - (2) REQUIREMENTS.—The field investigations for the 6-year steelhead study, to be completed during spring 2015, shall, at a minimum—
      - (A) include acoustic tagging of natural origin steelhead smolts captured during the pilot trap and barge program described in subsection (a) if fish of suitable size and condition are available;
      - (B) include an experimental manipulation of exports under which exports will range both substantially above and substantially below levels studied previously;
      - (C) include a sample size of acoustically tagged fish sufficient to detect an effect at least as small as a 10 percent change in absolute survival among experimental treatments;
        - (D) if available, use new acoustic tags capable of signaling when a tagged smolt has

been consumed by a predator; and

(E) be conducted without the Head of Old River Barrier in place so that tagged fish may migrate through the Old River route.

(c) Experimental Variability.—Nothing in the relevant 2009 biological opinions opinion or any successor biological opinion shall prohibit limited periods of exports that exceed applicable limits for the purpose of scientific inquiry, subject to rescheduling or cancellation of any exports that exceed applicable limits in the biological opinions if the Secretary of the Interior or the Secretary determines that it is necessary to do so to avoid jeopardy.

# SEC. 204203. PROCESS FOR ENSURING SALMONID MANAGEMENT IS RESPONSIVE TO NEW SCIENCE.

- (a) Purpose.—In response to the significant new science since the adoption of the salmonid biological opinion over 5 years before the date of enactment of this Act, the Secretary shall issue a written reevaluation and determination, in accordance with the standards and procedures described in this section, of in subsections (b)-(e) whether—
  - (1) certain water export limitations in the salmonid biological opinion are necessary to avoid jeopardy; or
  - (2) the water export limitations provide minor benefits that are either unnecessary for species survival or can be more effectively achieved through broadening or initiating any of a range of alternative management measures.
- (b) Framework for Evaluating the Necessity of Management Measures for Avoiding Jeopardy.—
  - (1) IN GENERAL.—To have the tools to evaluate whether certainIn order to evaluate whether existing or proposed water export limitations are necessary to avoid jeopardy in light of new science, the Secretary shall estimate the extent to which those export restrictions contribute to the survival of the species as compared to the contributions to species survival from a broad range of other management measures pursuant to paragraph (2).
  - (2) ESTIMATES RELATED TO DIFFERENT MANAGEMENT MEASURESOF HOW MUCH DIFFERENT MANAGEMENT MEASURES CONTRIBUTE TO SPECIES SURVIVAL.—Not later than December 31, 2016, and every five years thereafter, the Secretary shall, in collaboration with the Director of the California Department of Fish and Wildlife, based on and after taking into account the best scientific and commercial data available and giving greater weight to more recent data better reflecting current conditions in the Delta, for each listed salmonid species issue final quantitative estimates of the percentage increase in through-Delta survival the Secretary expects to be achieved—
    - (A) with export restrictions specified within RPA Actions IV.2.1 that limit flow to -5000 cubic feet per second compared to limiting flow to -2500 cubic feet per second, based on a given rate of San Joaquin River inflow to the Delta and holding other relevant factors constant;
    - (B) with inflow to export restrictions specified within RPA Actions IV.2.3 as compared to inflow to export requirements found in State Water Resources Control

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- and holding other relevant factors constant; (C) by a trap-and-barge program based on the experience of other comparable systems and the studies described in section 203\_\_\_\_, as that information becomes
  - (D) through habitat enhancement programs;
  - (E) through predation control programs;

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- (F) through the use of temporary barriers, the Cross Channel Gates, Head of Old River Barrier, and other projects affecting flow in the Delta;
- (G) by implementing a trapping program at the entrance to Clifton Court Forebay to capture and provide safe transport for entrained juvenile salmonids to the western Delta; and
  - (H) through the use of other management programs.
- (3) ESTIMATES RANGE OF INCREASED SURVIVAL PERCENTAGETO BE QUANTITATIVE TO THE MAXIMUM EXTENT FEASIBLE.—
  - (A) IN GENERAL.—To the maximum extent feasible, in estimating the benefits to the species from the management measures under paragraph (2), The the Secretary shall provide quantitative estimates, such as a range of percentage increases in through-Delta survival that could result from the management measures may provide a range of increased survival percentages for any of the measures described in paragraph (2), if the Secretary determines that the best scientific and commercial data available does not support an estimate of a specific percentage.
  - (B) If the Secretary cannot provide a quantitative estimate of the benefits to the species from a particular management measure, the Secretary shall qualitatively estimate the benefits.
  - (C) If the Secretary provides qualitative estimates of the benefits to the species from one or more management measures, the Secretary shall, to the maximum extent feasible, rank the management measures described in paragraph (2) in terms of their most likely expected contribution to increased through-Delta survival relative to the other measures. LIMITATION. The Secretary shall limit any range developed under subparagraph (A) to increased survival percentages that the Secretary determines have a reasonable probability of occurring.
  - (4) DRAFT ESTIMATES, PUBLIC COMMENT, AND SCHEDULE.—
    - (A) IN GENERAL.—The Secretary shall—
      - (i) not later than February 1, 2015, make available to the public the study design, including the data and analyses that the Secretary intends to use, for determining estimates of increased through-Delta survival percentages benefits for the species; and
      - (ii) provide an opportunity for public comment on the study design until April 30, 2015.

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B)	DRAFT ESTIMATES.—
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- (i) IN GENERAL.—Not later than December 31, 2015, the Secretary shall—
  - (I) issue draft quantitative estimates that will temporarily serve as a reference until the Secretary issues the final quantitative estimates; and
  - (II) concurrent with issuance of the draft quantitative estimates, make available to the public all data and analyses that were used or relied on to develop the draft quantitative estimates.
- (ii) PUBLIC COMMENT.—The Secretary shall provide an opportunity for public comment on the draft quantitative estimates for a period of 4 months.
- (5) REVISIONS TO ESTIMATES.—The Secretary shall update the final quantitative stimates—
  - (A)(i) periodically as necessary to address new scientific if requested to do so by the Governor of California, after the end of the 5-year period beginning on the date of the last update; and
  - (B) in accordance with the process described in paragraph (4), other than the deadlines prescribed for specific calendar dates.
- (c) Scientifically Supported Implementation of Old and Middle River Flow Requirements.—
  - (1) IN GENERAL.—Nothing in this subsection affects the limitation of OMR flow that is greater (more negative) than -5000 cubic feet per second, as described in the salmonid biological opinion.
  - (2) REQUIREMENTS.—Beginning January 1, 2016, in managing OMR River flow pursuant to the salmonid biological opinion or any successor biological opinion, the Secretary shall—
    - (A) consider the relevant provisions in the <u>2009</u> biological opinion <u>or any successor biological opinion</u> and other relevant data; and
    - (B) articulate the basis for the determination of the Secretary to require raised or lowered OMR flow levels within the range established by the salmonid biological opinion or any successor biological opinion, including—
      - (i) an explanation of the data examined and the connection between the data and the choice made; and
      - (ii) a showing that any limitation of OMR flow to levels less negative than -5000 cubic feet per second in the short-term is necessary to avoid jeopardy. In making any such showing, the Secretary shall consider the effects of managing negative flow in Old and Middle River flow consistent with the definition of "effects of the action" contained at 50 C.F.R. Part 402.02 and the definitions included in this title.
  - (3) EXPLANATION.—In any analysis of potential jeopardy conducted pursuant to paragraph (2)(B), the Secretary shall explain why implementation of this measure in particular OMR flow rate less negative than -5.000 cubic feet per second is necessary to avoid jeopardy, including by determining that—

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(A) it is not technically feasible or within Federal jurisdiction to achieve any increased survival benefit of the same or greater quantity from broadening or initiating any of the management measures described in subsection (b)(2) or other alternative management measures, including measures implemented with the support of a substantial contribution from water districts;

- (B) if it is technically feasible and within Federal jurisdiction to implement any such alternative management measures, the adverse consequences of doing so exceed the adverse consequences of limiting OMR flow to levels less negative than -5000 cubic feet per second, including a concise evaluation of the adverse consequences to other affected interests; or
- (C) it is technically feasible but not within Federal jurisdiction to implement certain alternative management measures, in which case the Secretary shall specifically describe the determination and the 1 or more alternative management measures.
- (4) COMPARISON OF BENEFITS.—If at the time the Secretary conducts the analysis under paragraph (3), the Secretary has not issued the draft or final quantitative estimates of increased through-Delta survival percentages forbenefits from different management measures pursuant to subsection (b), the Secretary shall compare the benefits to the species from different management measures based on the best scientific and commercial data available at the time.
- (d) Scientifically Supported Implementation of Inflow and Export Requirements.—
  - (1) IN GENERAL.—Beginning April 1, 2016, in relation to the provisions limiting the ratio of water exports from the Delta in relation to flow in the San Joaquin River beyond what is required under the State Water Resources Control Board Decision D-1641 pursuant to the salmonid biological opinion and any successor biological opinion, the Secretary shall—
    - (A) consider the relevant provisions in the biological opinion and other relevant data; and
    - (B) articulate an explanation, including of the data examined and the connection between the data and the choice made, as to why a limitation beyond that required under the State Water Resources Control Board Decision D-1641 in the short-term is necessary to avoid jeopardy as a prerequisite to continuing Action IV.2.3 of the salmonid biological opinion or any equivalent successor provision.
  - (2) REQUIREMENTS.—In any analysis of potential jeopardy conducted under paragraph (1)(B), the Secretary shall explain why implementation of this measurea limitation beyond that required under the State Water Resources Control Board Decision D-1641 in the short term is necessary to avoid jeopardy as a prerequisite to continuing Action IV.2.3 of the salmonid biological opinion or any equivalent successor provision in particular is necessary to avoid jeopardy, including by determining—
    - (A) it is not technically feasible or within Federal jurisdiction to achieve any increased survival benefit of the same or greater quantity from broadening or initiating any of the management measures described in subsection (b)(2) or other alternative management measures, including measures implemented with the support of a substantial contribution from water districts;

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- (B) if it is technically feasible and within Federal jurisdiction to implement any such alternative management measures, the adverse consequences of doing so exceed the adverse consequences of limiting the ratio of water exports from the Delta in relation to flow in the San Joaquin River beyond what is required under the State Water Resources Control Board Decision D-1641, including a concise evaluation of the adverse consequences to other affected interests; or
- (C) it is technically feasible but not within Federal jurisdiction to implement certain such alternative management measures, in which case the Secretary shall specifically describe the determination and the 1 or more alternative management measures.
- (3) COMPARISON OF BENEFITS.—If at the time the Secretary conducts the analysis in paragraph (2), the Secretary has not issued the draft or final quantitative estimates of increased through-Delta survival percentages for benefits from different management measures pursuant to subsection (b), the Secretary shall compare the benefits to the species from different management measures based on the best scientific and commercial data available at the time.

(e) Judicial Review. Determinations by the Secretary of OMR flow determinations under subsection (c) and inflow and export ratio determinations under subsection (d) shall constitute final agency action.

# SEC. 205204. NONNATIVE REDUCTION PILOT PROGRAM IN THE DELTA AND TRIBUTARIES PILOT PROGRAM TO PROTECT NATIVE ANADRAMOUS FISH IN THE STANISLAUS RIVER.

(a) Establishment of Non-native Predator Fish Removal Program- The Assistant Administrator, in consultation with the United States Fish and Wildlife Service and the California Department of Fish and Wildlife, shall develop and conduct a pilot non-native predator fish removal program to remove non-native striped bass, smallmouth bass, largemouth bass, black bass, and other non-native predator fishes from the Stanislaus River. The pilot program shall--

#### (1) be scientifically based;

(2) include methods to quantify the number and size of predator fishes removed each year, the impact of such removal on the overall abundance of predator fishes, and the impact of such removal on the populations of juvenile anadromous fish found in the Stanislaus River by, among other things, evaluating the number of juvenile anadromous fish that migrate past the rotary screw trap located at Caswell;

(3) among other methods, use wire fyke trapping, portable resistance board weirs, and boat electrofishing, which are among the most effective predator collection techniques that minimize effects to native anadromous fish:

(4) be developed, including the application for all necessary scientific research and species enhancement permits under section 10(a)(1) of the Endangered Species Act of 1973 (16 U.S.C. 1539(a)(1)), for the performance of the pilot program, not later than 6 months after the date of the enactment of this Act;

Formatted: Font: 16 pt, Italic Formatted: Font: 16 pt, Italic (5) be implemented on the first business day of the calendar year following the issuance of all necessary scientific research and species enhancement permits needed to begin the

(6) be implemented for a period of seven consecutive calendar years.

(b) Management- The management of the pilot program shall be the joint responsibility of the Assistant Administrator and the districts. Such parties shall work collaboratively to ensure the performance of the pilot program, and shall discuss and agree upon, among other things, changes in the structure, management, personnel, techniques, strategy, data collection, reporting and conduct of the pilot program.

#### (c) Conduct-

pilot program; and

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(1) IN GENERAL- At the election of the districts, the pilot program may be conducted by their own personnel, qualified private contractors hired by the districts, personnel of, on loan to, or otherwise assigned to NOAA Fisheries, or a combination thereof.

(2) PARTICIPATION BY NOAA FISHERIES -In the event the districts elect to conduct the program using their own personnel or qualified private contractors hired by them, the Commissioner has the option to assign an employee of, on loan to, or otherwise assigned to NOAA Fisheries, to be present for all activities performed in the field. Such presence shall ensure compliance with the agreed upon elements specified in subsection (b). The districts shall pay 100 percent of the cost of such participation as specified in subsection

(3) TIMING OF ELECTION- The districts shall notify the Asssistant Administrator of their election on or before October 15 of each calendar year of the pilot program, which election shall apply to the work performed in the subsequent calendar year.

#### (d) Funding-

(1) ANNUAL FUNDING- The districts shall be responsible for 100 percent of the cost of the pilot program. On or before December 1 of each year of the pilot program, the Commissioner shall submit to the districts an estimate of the cost to be incurred by the Bureau of Reclamation in the following calendar year, if any, including the cost of any data collection and posting under subsection (e). If an amount equal to the estimate is not provided to the fund directed by the Assistant Administrator by the districts on or before December 31 of each year, (a) NOAA Fisheries shall have no obligation to conduct the pilot program activities otherwise scheduled, and (b) the districts shall be prohibited from conducting any aspect of the pilot program, until full payment is made by the districts.

(2) ACCOUNTING- On or before September 1 of each calendar year, the Assistant Administrator shall provide an accounting of the prior calendar year's expenses to the districts. If the estimate paid by the districts was less than the actual costs incurred by NOAA Fisheries, the districts shall have until September 30 of that calendar year to pay the difference to the fund identified by the Assistant Administrator in subsection (d)(1). If the estimate paid by the districts was greater than the actual costs incurred by NOAA Fisheries, then a credit shall be provided to the districts, which shall be deducted from the estimate payment the districts must make for the work performed by NOAA Fisheries, if any, in the next calendar year.

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1	(e) Reporting and Evaluation-
2 3 4	(1) IN GENERAL- On or before the 15th day of each month, the Assistant Administrator shall post on the website of NOAA Fisheries a tabular summary of the raw data collected in the prior month.
5 6 7	(2) REPORT- On or before June 30 of the calendar year following the completion of the program, the Assistant Administrator and districts shall jointly publish a peer reviewed report that
8	(A) discusses the findings and conclusions of the pilot program:
9	(B) synthesizes the data collected under paragraph (1); and
10	(C) makes recommendations for further study and action.
11	(f) Permits Process-
12 13 14 15 16	(1) Not later than one year after filing of an application by the Assistant Administrator and the districts, the Secretary of the Interior, the Secretary of Commerce, or both, as appropriate, shall issue all necessary scientific research and species enhancement permits under section 10(a)(1) of the Endangered Species Act (16 U.S.C. 153(9)(a)(1)), for the performance of the pilot program.
17	(2) All permits issued shall be in the name of NOAA Fisheries and the districts.
18	(3) Districts may delegate the authority to administer the permit authority to any qualified
19	private contractor retained in accordance with subsection (c).
19 20 21 22 23 24	private contractor retained in accordance with subsection (c).  (g) Emergency Environmental Reviews – To expedite this environmentally beneficial program for the conservation of threatened and endangered species, the Secretary of the Interior shall consult with the Council on Environmental Quality in accordance with Section 1506.11 of title 40, Code of Federal Regulations (including successor regulations) to develop alternative arrangements to comply with the National Environmental Policy Act of 1969 for this section.
20 21 22 23	(g) Emergency Environmental Reviews – To expedite this environmentally beneficial program for the conservation of threatened and endangered species, the Secretary of the Interior shall consult with the Council on Environmental Quality in accordance with Section 1506.11 of title 40. Code of Federal Regulations (including successor regulations) to develop alternative
20 21 22 23 24	(g) Emergency Environmental Reviews – To expedite this environmentally beneficial program for the conservation of threatened and endangered species, the Secretary of the Interior shall consult with the Council on Environmental Quality in accordance with Section 1506.11 of title 40, Code of Federal Regulations (including successor regulations) to develop alternative arrangements to comply with the National Environmental Policy Act of 1969 for this section.
20 21 22 23 24 25 26	(g) Emergency Environmental Reviews – To expedite this environmentally beneficial program for the conservation of threatened and endangered species, the Secretary of the Interior shall consult with the Council on Environmental Quality in accordance with Section 1506.11 of title 40. Code of Federal Regulations (including successor regulations) to develop alternative arrangements to comply with the National Environmental Policy Act of 1969 for this section.  (h) Definitions- For the purposes of this section:  (1) COMMISSIONER- The term 'Commissioner' means the Commissioner of the Bureau
20 21 22 23 24 25 26 27 28	(g) Emergency Environmental Reviews – To expedite this environmentally beneficial program for the conservation of threatened and endangered species, the Secretary of the Interior shall consult with the Council on Environmental Quality in accordance with Section 1506.11 of title 40, Code of Federal Regulations (including successor regulations) to develop alternative arrangements to comply with the National Environmental Policy Act of 1969 for this section.  (h) Definitions- For the purposes of this section:  (1) COMMISSIONER- The term 'Commissioner' means the Commissioner of the Bureau of Reclamation.  (2) DISTRICTS- The term 'districts' means the Oakdale Irrigation District and the South
20 21 22 23 24 25 26 27 28 29	(g) Emergency Environmental Reviews – To expedite this environmentally beneficial program for the conservation of threatened and endangered species, the Secretary of the Interior shall consult with the Council on Environmental Quality in accordance with Section 1506.11 of title 40, Code of Federal Regulations (including successor regulations) to develop alternative arrangements to comply with the National Environmental Policy Act of 1969 for this section.  (h) Definitions- For the purposes of this section:  (1) COMMISSIONER- The term 'Commissioner' means the Commissioner of the Bureau of Reclamation.  (2) DISTRICTS- The term 'districts' means the Oakdale Irrigation District and the South San Joaquin Irrigation District.  (3) PILOT PROGRAM- The term 'program' means the pilot non-native predator removal
20 21 22 23 24 25 26 27 28 29 30 31 32	(g) Emergency Environmental Reviews – To expedite this environmentally beneficial program for the conservation of threatened and endangered species, the Secretary of the Interior shall consult with the Council on Environmental Quality in accordance with Section 1506.11 of title 40, Code of Federal Regulations (including successor regulations) to develop alternative arrangements to comply with the National Environmental Policy Act of 1969 for this section.  (h) Definitions- For the purposes of this section:  (1) COMMISSIONER- The term 'Commissioner' means the Commissioner of the Bureau of Reclamation.  (2) DISTRICTS- The term 'districts' means the Oakdale Irrigation District and the South San Joaquin Irrigation District.  (3) PILOT PROGRAM- The term 'program' means the pilot non-native predator removal program established under this section.  (i) Sunset- The authorities provided under this section shall expire seven years after the implementation of the pilot program.  SEC. 205. CALFED INVASIVE SPECIES PILOT PROJECTS
20 21 22 23 24 25 26 27 28 29 30 31 32 33	(g) Emergency Environmental Reviews – To expedite this environmentally beneficial program for the conservation of threatened and endangered species, the Secretary of the Interior shall consult with the Council on Environmental Quality in accordance with Section 1506.11 of title 40. Code of Federal Regulations (including successor regulations) to develop alternative arrangements to comply with the National Environmental Policy Act of 1969 for this section.  (h) Definitions- For the purposes of this section:  (1) COMMISSIONER- The term 'Commissioner' means the Commissioner of the Bureau of Reclamation.  (2) DISTRICTS- The term 'districts' means the Oakdale Irrigation District and the South San Joaquin Irrigation District.  (3) PILOT PROGRAM- The term 'program' means the pilot non-native predator removal program established under this section.  (i) Sunset- The authorities provided under this section shall expire seven years after the implementation of the pilot program.  SEC. 205. CALFED INVASIVE SPECIES PILOT PROJECTS IN THE SACRAMENTO-SAN JOAQUIN BAY DELTA AND
20 21 22 23 24 25 26 27 28 29 30 31 32 33	(g) Emergency Environmental Reviews – To expedite this environmentally beneficial program for the conservation of threatened and endangered species, the Secretary of the Interior shall consult with the Council on Environmental Quality in accordance with Section 1506.11 of title 40, Code of Federal Regulations (including successor regulations) to develop alternative arrangements to comply with the National Environmental Policy Act of 1969 for this section.  (h) Definitions- For the purposes of this section:  (1) COMMISSIONER- The term 'Commissioner' means the Commissioner of the Bureau of Reclamation.  (2) DISTRICTS- The term 'districts' means the Oakdale Irrigation District and the South San Joaquin Irrigation District.  (3) PILOT PROGRAM- The term 'program' means the pilot non-native predator removal program established under this section.  (i) Sunset- The authorities provided under this section shall expire seven years after the implementation of the pilot program.  SEC. 205. CALFED INVASIVE SPECIES PILOT PROJECTS

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1	(1) The Sacramento-San Joaquin Bay Delta and its Tributaries-
2	(A) is one of the largest and most diverse estuaries in the United States,
3	(B) is a natural treasure and a vital link in California's water system, and
4 5 6	(C) has native biodiversity important to the ecological and economic systems of California, including water deliveries to agriculture, municipalities and to the environment and fisheries industries, and
7 8	(D) has river tributaries important for rearing of salmon and steelhead smolts which experience a high level of predation from non-native species.
9 10 11	(2) Past, present and future introductions of invasive species are and will be a major factor in the decline of native pelagic and anadromous endangered or threatened species in the Sacramento—San Joaquin Bay Delta and its tributaries.
12 13 14	(3) More than 250 nonnative aquatic and plant species have been introduced into the Delta and its tributaries; of these, at least 185 species have become established and have altered the Sacramento-San Joaquin Bay Delta watershed's ecosystem.
15 16 17 18 19 20 21 22 23	(4) The Bay Delta Conservation Plan, the Recovery Plan for the Evolutionary Significant Units of Sacramento River Winter-run Chinook Salmon and Central Valley Spring-run Chinook Salmon and the Distinct Population Segment of the Central Valley Steelhead, the Recovery Plan for the Sacramento-San Joaquin Delta Native Fishes, and the multiple 5 year reviews of those plans all highlight that introduced nonnative invasive species are a significant factor in the decline of native fish species. These nonnative species, which include invasive aquatic vegetation, predators, and competitors, directly or indirectly cause biological stress for pelagic and anadromous endangered or threatened fish species in the Sacramento-San Joaquin Bay-Delta and its tributaries.
24 25 26	(5) If threats by nonnative species to native fish species are not addressed, there is a high probability that native species of the Sacramento-San Joaquin Bay-Delta watershed's pelagic and anadromous community will go extinct.
27 28	(6) The CALFED legislation (Public Law 108-361) authorized a program to prevent, control, and eradicate invasive species, but it has not been implemented to date.
29 30 31 32	(7) A focused pilot program needs to be conducted within the Delta and river tributaries to reduce threats to native listed species by nonnative species. Reducing nonnative stressors on native listed species will contribute to both native listed species recovery and lowering the impact on downstream water users as those native listed species recover.
33	(b) PILOT PROJECTS TO IMPLEMENT CALFED INVASIVE SPECIES PROGRAM.
34 35 36 37 38	(1) Not later than January 1, 2016, the Secretary of the Interior, in collaboration with the Secretary of Commerce and the Director of the California Department of Fish and Wildlife, shall begin pilot projects to implement the invasive species program, including prevention, control and eradication authorized pursuant to Section 103(d)(6)(A)(iv) of Public Law 108-361. The pilot projects shall:
39 40	(A) seek to reduce invasive aquatic vegetation, predators, and other competitors which are major factors in the decline of native listed pelagic and anadromous

1 2	species that occupy the Sacramento and San Joaquin Rivers and their tributaries and the Sacramento-San Joaquin Bay-Delta; and
3 4 5 6	(B) address how to remove, reduce, or control the effects of species including: Asiatic clams, silversides, gobies, Brazilian water weed, largemouth bass, smallmouth bass, striped bass, crappie, bluegill, white and channel catfish, and brown bullheads.
7	(2) The Secretary of the Interior's efforts shall consist of the following phases:
8 9	(A) Phase 1. The Secretary of the Interior shall convene a panel of experts. including experts recommended by the State of California, to:
10 11	(i) Identify the non-native species having the greatest impact on the viability of native pelagic and anadromous native listed species; and
12 13 14	(ii) Identify the non-native species for which actions to reduce or control the population is determined to be possible; and
15 16 17	(iii) Design a study to reduce the non-native species identified in clauses (i) and (ii) and prepare a cost estimate to implement this study.
18 19 20 21 22 23	(B) Phase 2. The Secretary of the Interior shall test the general viability of nonnative reduction methods, including either direct predator removal or alteration of channel conditions, or some combination thereof, through pilot projects at multiple sites in addition to the projects on the Stanislaus River pursuant to Section , including known hotspots of predator aggregation or activity, such as:
24	(i) Clifton Court Forebay.
25	(ii) Central Valley Project intakes.
26	(iii) Head of Old River.
27	(iv) Georgiana Slough,
28	(v) Old and Middle Rivers,
29	(vi) Franks Tract,
30	(vii) Paintersville Bridge,
31 32 33	(viii) individual river tributaries important for wild populations of anadromous species listed as threatened or endangered under the Endangered Species Act of 1973.
34	(ix) Human-made submerged structures, and
35	(x) Salvage release sites.
36 37 38	(C) Phase 3. If it is feasible to do so, the Secretary of the Interior shall implement nonnative reduction methods at a larger number of sites, incorporating information learned during the first and second phase.

(3) The Secretary of the Interior shall collect data associated with the implementation of 1 the projects above, and shall specifically collect data on the impact on 2 3 (A) pelagic and anadromous species listed as threatened or endangered under the Endangered Species Act of 1973. 4 5 (B) water quality, and (C) water supply. 6 7 (4) After assessing the data described in subparagraph (2), the Secretary of the Interior, in 8 collaboration with the Secretary of Commerce and the Director of the California Department of Fish and Wildlife, shall, if appropriate, annually recommend revisions to 9 the reasonable and prudent alternatives contained in the salmonid biological opinion and 10 the biological opinion issued by the United States Fish and Wildlife Service on December 11 15, 2008, or other administrative federal requirements governing the operation of the 12 13 Central Valley Project and the State Water Project, that are likely to produce additional 14 fishery, water quality, and water supply benefits. (c) IMPLEMENTATION. The Secretary of the Interior shall implement the CALFED program 15 described in subpart (b) for at least a period of seven consecutive years beginning on the date of 16 17 implementation. (d) REPORTING REQUIREMENTS. The Secretary of the Interior shall provide reports to the 18 Senate Committee on Environment and Public Works and the House Committee on Natural 19 20 Resources on the following: 21 (1) No later than January 1, 2016, a description of the projects described in subpart (b), including the application for all necessary scientific research and species enhancement 22 permits under section 10(a) (1) of the Endangered Species Act of 1973 (16 U.S.C. 23 1539(a)(1)), and for the performance of the CALFED invasive species Program. 24 (2) Upon the completion of Phase 1 as described in subsection (b)(1)(A), a report 25 describing its implementation and cost effectiveness. 26 27 (3) Two years after the project begins, a report describing the progress of the eradication 28 of the nonnative species in the Sacramento-San Joaquin Bay-Delta and its tributaries and 29 how such efforts have helped the Recovery Plans for endangered and threatened 30 Anadromous and Pelagic Species in the San Joaquin -Sacramento Bay-Delta watershed 31 32 and the associated cost effectiveness of each control measure. 33 (4) After the pilot projects are complete, a report describing the results of the program. including recommendations on whether the program should be continued, how the 34 35 program may be taken to full scale in the most cost effective manner, and how a mitigation program for the Central Valley Project allowable under section 10(a)(1) of the 36 37 Endangered Species Act of 1973 (16 U.S.C. 1539(a)(1) could be implemented. 38 (e) EMERGENCY ENVIRONMENTAL REVIEWS. To expedite this environmentally beneficial 39 program for the conservation of threatened and endangered species, the Secretary of the Interior 40 shall consult with the Council on Environmental Quality in accordance with section 1506.11 of 41 title 40, Code of Federal Regulations (including successor regulations) to develop alternative

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arrangements to comply with the National Environmental Policy Act of 1969 for this program.

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# SEC. 206. MARK FISHERY AND HARVEST MANAGEMENT.

- (a) In General.—To minimize the impact of harvest and project operations on salmonids, contribute to recovery of stocks of endangered or threatened species, and to minimize risk of a natural origin fall Chinook listing under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), not later than 2015, the Director shall implement a mass marking program for Central Valley hatchery fall Chinook, in partnership with the Director of the California Department of Fish and Wildlife and persons responsible for funding Central Valley hatcheries.
  - (b) Harvest Management Strategies .-

- (1) IN GENERAL.—Not later than October 1, 2018, the Director shall assess and implement new harvest management strategies to provide better protection for sensitive Chinook stocks while still allowing for harvest of hatchery fall Chinook.
- (2) INCLUSIONS.—Alternative harvest strategies assessed shall include stock-specific quotas, daily landing limits, terminal fisheries, and mark-selective fisheries, all of which methods are standard practice for Chinook harvest management in Oregon and Washington.

# SEC. 207. NEW ACTIONS TO BENEFIT CENTRAL VALLEY SALMONIDS.

Not later than March 1, 2016, under similar terms and conditions as successful United States Fish and Wildlife Service programs on Clear Creek and Battle Creek, the Director, in collaboration with the Director of the California Department of Fish and Wildlife, the Commissioner of the Bureau of Reclamation, or both, shall issue necessary permits and otherwise facilitate the deployment of temporary in-river structures—

- (1) to protect and grow natural origin spring Chinook populations by blocking access to hatchery origin fall Chinook; and
- (2) to prevent hatchery origin Chinook salmon and steelhead from reaching spawning grounds where the species will compete for spawning with natural origin fish listed under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.).

# 28 TITLE III—OPERATIONAL FLEXIBILITY AND DROUGHT 29 RELIEF

- 30 SEC. 301. FINDINGS.
- 31 Congress finds that—
  - (1) as established in the Proclamation of a State of Emergency issued by the Governor of the State on January 17, 2014, the State is experiencing record dry conditions;
  - (2) extremely dry conditions have persisted in the State since 2012, and the drought conditions are likely to persist into the future;
    - (3) the water supplies of the State are at record-low levels, as indicated by-

2	of February 1, 2014; and
3 4	(B) the fact that all major Central Valley Project reservoir levels were at levels equal to or less than 50 percent of the capacity of the reservoirs as of April 1, 2014;
5 6 7	(4) the drought of 2013 through 2014 constitutes a serious emergency that poses immediate and severe risks to human life and safety and to the environment throughout the State;
8	(5) the serious emergency described in paragraph (4) requires—
9 10	(A) immediate and credible action that respects the complexity of the water system of the State and the importance of the water system to the entire State; and
11 12	(B) policies that do not pit stakeholders against one another, which history shows only leads to costly litigation that benefits no one and prevents any real solutions;
13 14 15 16	(6) Federal law (including regulations) directly authorizes expedited decisionmaking procedures and environmental and public review procedures to enable timely and appropriate implementation of actions to respond to the type and severity of the serious emergency described in paragraph (4); and
17   18   19	(7) the serious emergency described in paragraph (4) fully satisfies the conditions necessary for the exercise of emergency decision_making, analytical, and public review requirements under—
20	(A) the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.);
21	(B) the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.);
22 23 24	(C) water control management procedures of the Corps of Engineers described in section 222.5 of title 33, Code of Federal Regulations (including successor regulations); and
25 26	(D) the Reclamation States Emergency Drought Relief Act of 1991 (Public Law 102–250; 106 Stat. 53).
27	SEC. 302. DEFINITIONS.
28	In this title:
29 30 31	(1) CENTRAL VALLEY PROJECT.—The term "Central Valley Project" has the meaning given the term in section 3403 of the Central Valley Project Improvement Act (Public Law 102–575; 106 Stat. 4707).
32 33 34	(2) KLAMATH PROJECT.—The term "Klamath Project" means the Bureau of Reclamation project in the States of California and Oregon, as authorized under the Act of June 17, 1902 (32 Stat. 388, chapter 1093).
35 36 37	(3) RECLAMATION PROJECT.—The term "Reclamation Project" means a project constructed pursuant to the authorities of the reclamation laws and whose facilities are wholly or partially located in the State.

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(4) SECRETARIES.—The term "Secretaries" means—

Formatted: Font: 16 pt. Italia Formatted: Font: 16 pt, Italic Formatted: Font: 16 pt, Italic (A) the Administrator of the Environmental Protection Agency;

- - (B) the Secretary of Agriculture;
  - (C) the Secretary of Commerce; and
  - (D) the Secretary of the Interior.
  - (5) STATE WATER PROJECT.—The term "State Water Project" means the water project described by California Water Code section 11550 et seq., and operated by the California Department of Water Resources.

### SEC. 303. OPERATIONAL FLEXIBILITY IN TIMES OF DROUGHT.

#### (a) Water Supplies.—

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- (1) IN GENERAL.—In response to a declaration of a state of drought emergency by the Governor of California and for the period of time such a drought declaration remains in effect, the Secretaries shall provide the maximum quantity of water supplies practicable to Central Valley Project agricultural, municipal and industrial, and refuge service and repayment contractors, State Water Project contractors, and any other locality or municipality in the State, by approving, consistent with applicable laws (including regulations), projects and operations to provide additional water supplies as quickly as practicable based on available information to address the emergency conditions.
- (2) APPLICATION.—Paragraph (1) applies to projects or operations involving the Klamath Project if the projects or operations would benefit Federal water contractors in the State.
- (b) Administration.—In carrying out subsection (a), the Secretaries shall, consistent with applicable laws (including regulations)—
  - (1) issue all necessary permit decisions under the authority of the Secretaries not later than 30 days after the date on which the Secretaries receive a completed application from the State to place and use temporary barriers or operable gates in Delta channels to improve water quantity and quality for the State Water Project and the Central Valley Project south of Delta water contractors and other water users, on the condition that the barriers or operable gates-
    - (A) provide benefits for species protection and in-Delta water user water quality;
    - (B) are designed so that formal consultations under section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1536) are not necessary;
  - (2) require the Director of the United States Fish and Wildlife Service and the Commissioner of Reclamation-
    - (A) to complete, not later than 30 days after the date on which the Director or the Commissioner receives a water transfer request associated with voluntarily fallowing nonpermanent crops in the State, all requirements under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) necessary to make final permit decisions on the request; and

(B) to grant any water transfer request described in subparagraph (A) to maximize the quantity of water supplies available for nonhabitat uses, on the condition that the fallowing and associated water transfer are in compliance with applicable Federal laws (including regulations);

- (3) adopt a 1:1 inflow to export ratio for the increment of increased flow of the San Joaquin River, as measured as a 3-day running average at Vernalis during the period beginning on April 1, and ending on May 31, resulting from voluntary transfers and exchanges of water supplies, on the condition that a proposed transfer or exchange under this paragraph may only proceed if the Secretary of the Interior determines that the environmental effects of the proposed transfer or exchange are consistent with effects permissible under applicable law (including regulations); and
- (4) make any WaterSMART grant funding allocated to the State available on a priority and expedited basis for projects in the State that—
  - (A) provide emergency drinking and municipal water supplies to localities in a quantity necessary to meet minimum public health and safety needs;
    - (B) prevent the loss of permanent crops;
    - (C) minimize economic losses resulting from drought conditions; or
  - (D) provide innovative water conservation tools and technology for agriculture and urban water use that can have immediate water supply benefits.
- (c) Accelerated Project Decision and Elevation.—
  - (1) IN GENERAL.—On request by the State, the heads of Federal agencies shall use the expedited procedures under this subsection to make final decisions relating to a Federal project or operation to provide additional water supplies or address emergency drought conditions pursuant to subsections (a) and (b).
    - (2) REQUEST FOR RESOLUTION.—
      - (A) IN GENERAL.—On request by the State, the head of a Federal agency described in [paragraph (1)], or the head of another Federal agency responsible for carrying out a review of a project, as applicable, the Secretary of the Interior shall convene a final project decision meeting with the heads of all relevant Federal agencies to decide whether to approve a project to provide emergency water supplies.
      - (B) MEETING.—The Secretary of the Interior shall convene a meeting requested under subparagraph (A) not later than 7 days after the date on which the meeting request is received.
  - (3) NOTIFICATION.—On receipt of a request for a meeting under paragraph (2), the Secretary of the Interior shall notify the heads of all relevant Federal agencies of the request, including information on the project to be reviewed and the date of the meeting.
  - (4) DECISION.—Not later than 10 days after the date on which a meeting is requested under paragraph (2), the head of the relevant Federal agency shall issue a final decision on the project.
    - (5) MEETING CONVENED BY SECRETARY.—The Secretary of the Interior may convene a

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final project decision meeting under this subsection at any time, at the discretion of the Secretary, regardless of whether a meeting is requested under paragraph (2).

- (d) Application.—To the extent that a Federal agency, other than the agencies headed by the Secretaries, has a role in approving projects described in subsections (a) and (b), this section shall apply to those Federal agencies.
- (e) Limitation.—Nothing in this section authorizes the heads of applicable Federal agencies to approve projects—
  - (1) that would otherwise require congressional authorization; or
  - (2) without following procedures required by applicable law.

#### SEC. 304. OPERATION OF CROSS-CHANNEL GATES.

- (a) In General.—The Secretary of Commerce and the Secretary of the Interior shall jointly—
  - (1) authorize and implement activities to ensure that the Delta Cross Channel Gates remain open to the maximum extent practicable using findings from the United States Geological Survey on diurnal behavior of juvenal salmonids, timed to maximize the peak flood tide period and provide water supply and water quality benefits for the duration of the drought emergency declaration of the State, consistent with operational criteria and monitoring criteria developed pursuant to the Order Approving a Temporary Urgency Change in License and Permit Terms in Response to Drought Conditions of the California State Water Resources Control Board, effective January 31, 2014 (or a successor order);
  - (2) with respect to the operation of the Delta Cross Channel Gates described in paragraph (1), collect data on the impact of that operation on—
    - (A) species listed as threatened or endangered under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.);
      - (B) water quality; and
      - (C) water supply;
  - (3) consistent with knowledge gained from activities carried out during 2014, collaborate with the California Department of Water Resources to install a deflection barrier at Georgiana Slough in coordination with Delta Cross Channel Gate diurnal operations to protect migrating salmonids;
  - (4) evaluate the combined salmonid survival in light of activities carried out pursuant to paragraphs (1) through (3) in deciding how to operate the Delta Cross Channel gates to enhance salmonid survival and water supply benefits; and
  - (5) not later than May 15, 2015, submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Natural Resources of the House of Representatives a written report on the extent to which the gates are able to remain open.
- (b) Recommendations.—After assessing the information collected under subsection (a), the Secretary [of the Interior] shall recommend revisions to the operation of the Delta Cross-Channel Gates, to the Central Valley Project, and to the State Water Project, including, if appropriate, any reasonable and prudent alternatives contained in the biological opinion issued by the National

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Marine Fisheries Service on June 4, 2009, that are likely to produce fishery, water quality, and water supply benefits.

#### SEC. 305. FLEXIBILITY FOR EXPORT/INFLOW RATIO.

In response to the declaration of a state of drought emergency by the Governor of California and for the period of time such a drought declaration remains in effect, consistent with the Central Valley Project and State Water Project Drought Operations Plan and Operational Forecast, the Commissioner of the Bureau of Reclamation shall continue to vary the averaging period of the Delta Export/Inflow ratio pursuant to the California State Water Resources Control Board decision D1641, approved in the March Temporary Urgency Change Order—

- (1) to operate to a 35 percent Export/Inflow ratio with a 3 day averaging period on the rising limb of a Delta inflow hydrograph; and
- (2) to operate to a 14 day averaging period on the falling limb of the Delta inflow hydrograph.

#### SEC. 306. EMERGENCY ENVIRONMENTAL REVIEWS.

To minimize the time spent carrying out environmental reviews and to deliver water quickly that is needed to address emergency drought conditions in the State during the duration of an emergency drought declaration, the head of each applicable Federal agency shall, in carrying out this Act, consult with the Council on Environmental Quality in accordance with section 1506.11 of title 40, Code of Federal Regulations (including successor regulations), to develop alternative arrangements to comply with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) during the emergency.

# SEC. 307. PRIORITIZING STATE REVOLVING FUNDS DURING DROUGHTS.

- (a) In General.—This section shall apply for each of the fiscal years during which an emergency drought declaration of the State is in effect.
- (b) The The Administrator of the Environmental Protection Agency, in allocating amounts for each of the fiscal years during which an emergency drought declaration of the State is in effect to implementing the processes and programs under the State water pollution control revolving funds established under title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) and the State drinking water treatment revolving loan funds established under section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j–12), shall, for those projects that are eligible to receive assistance under section 603 of the Federal Water Pollution Control Act (33 U.S.C. 1383) or section 1452(a)(2) of the Safe Drinking Water Act (42 U.S.C. 300j–12(a)(2)), respectively, that the State determines will provide additional water supplies most expeditiously to areas that are at risk of having an inadequate supply of water for public health and safety purposes or to improve resiliency to drought
  - (12) issue a determination of waivers within 30 days of the conclusion of the informal public comment period pursuant to section 436(e) of title IV of division G of Public Law 113–76; and
    - (32) authorize, at the request of the State, 40-year financing for assistance under section

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603(d)(2) of the Federal Water Pollution Control Act (33 U.S.C. 1383(d)(2)) or section 1452(f)(2) of the Safe Drinking Water Act (42 U.S.C. 300j-12(f)(2)).

(c) Effect of Section.—Nothing in this section authorizes the Administrator of the Environmental Protection Agency to modify any funding allocation, funding criteria, or other requirement relating to State water pollution control revolving funds established under title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) and the State drinking water treatment revolving loan funds established under section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j–12) for any other State.

# SEC. 308. INCREASED FLEXIBILITY FOR REGULAR PROJECT OPERATIONS.

The Secretaries shall, consistent with applicable laws (including regulations)—

- (1) to the maximum extent practicable, based on the availability of water and without causing land subsidence or violating water quality standards—
  - (A) help meet the contract water supply needs of Central Valley Project refuges through the improvement or installation of water conservation measures, water conveyance facilities, and wells to use groundwater resources, on the condition that those activities may only be accomplished by using funding made available under the Water Assistance Program or the WaterSMART program of the Department of the Interior; and
  - (B) make available to Central Valley Project contractors a quantity of Central Valley Project surface water obtained from the activities carried out under subparagraph (A);
- (2) in coordination with the Secretary of Agriculture, enter into an agreement with the National Academy of Sciences to conduct a comprehensive study, to be completed not later than 1 year after the date of enactment of this Act, on the effectiveness and environmental impacts of saltcedar biological control efforts on increasing water supplies and improving riparian habitats of the Colorado River and its principal tributaries, in the State and elsewhere:
- (3) in coordination with the California Department of Water Resources and the California Department of Fish and Wildlife, implement offsite upstream projects in the Delta and upstream Sacramento River and San Joaquin basins that offset the effects on species listed as threatened or endangered under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) due to activities carried out pursuant this Act, [as determined by the Secretaries];
- (4) manage reverse flow in the Old and Middle Rivers as prescribed by the biological opinions issued by the United States Fish and Wildlife Service on December 15, 2008, for Delta smelt and by the National Marine Fisheries Service on June 4, 2009, for salmonids, or any successor biological opinions, to minimize water supply reductions for the Central Valley Project and the State Project, and issue guidance no later than December 31, 2015 directing their employees to take all steps necessary to manage flow in accordance with this paragraph;
- (5) as soon as practicable after the date of enactment of this Act and pursuant to existing authority available to the Secretary of the Interior, participate in, issue grants, or otherwise

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provide funding for pilot projects to increase water in reservoirs in regional river basins experiencing extreme, exceptional, or sustained drought that have a direct impact on the water supply of the State, including the Colorado River Basin, on the condition that any participation, grant, or funding by the Secretary of the Interior with respect to the Upper Division shall be with or to the respective State; and

(6) use all available scientific tools to identify any changes to real-time operations of the Bureau of Reclamation, State, and local water projects that could result in the availability of additional water supplies.

# SEC. 309. TEMPORARY OPERATIONAL FLEXIBILITY FOR FIRST FEW STORMS OF 2014-2015 WATER YEAR.

#### (a) Findings:

- During the 2014 water year, operations of the Central Valley Project and the State Water Project caused zero take of adult Delta smelt, and only finsert take of 530 winter run salmonids, which is only finsert 1.46 percent of the incidental take level for the winter run salmonids.
- 2) Despite the absence of any take of adult delta smelt and the very low levels of take of salmon, during and after storm events in the 2014 water year, the Central Valley Project and State Water Project never exceeded a combined pumping capacity of 6,280—cubic feet per second over a 14-day average.
- 3) As stated in Section , the latest scientific studies have not shown a substantiated connection between water pumping and salmon survival rates.
- 4) Hydrological conditions in dry years, such as the 2014 water year, have not triggered water pumping restrictions pursuant to the 2008 smelt biological opinion.
- 5) The Secretaries should be allowed more flexibility to increase pumping levels without causing for fish and other endangered Species or weakening other environmental protections.
- 6) Given California's severe drought conditions, significant groundwater withdrawals for irrigation due to lack of surface water supplies, and the depletion of water supplies in reservoirs, it is imperative that the Secretaries exercise the flexibility provided herein to capture the maximum amount of storm flows when and if they occur in the 2014-2015 water year, so that farms, businesses, and homes in the areas with the most severe drought risks will have an opportunity to bolster their meager supplies when water is available.
- (b) Goal. To the maximum extent possible consistent with avoiding jeopardy under the Endangered Species Act pursuant to subsection (d) and in accordance with other state and federal laws (including regulations) as described in subsection (e), the Secretaries shall authorize the Central Valley Project and the State Water Project, combined, to operate at levels that result in Old and Middle River flows at -7500 cubic feet per second for 21 cumulative days of high outflow after October 1, 2014, as described in subsection (c).
- (c) Days of high outflow. The days of high outflow described in subsection (b) shall constitute
   days that the California Department of Water Resources determines the daily average river flow
   of the Sacramento River is at, or above, 17,000 cubic feet per second as measured at the
- 43 Sacramento River at Freeport gauge maintained by the United States Geologic Survey.

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(d) Avoiding jeopardy. In carrying out this section, the Secretaries may continue to impose any requirements under the biological opinions during any period of high outflow if they:

(1) Demonstrate, including an explanation of the data examined and the connection between those data and the choice made, why such provisions are necessary in the short-term to avoid jeopardy after considering other alternatives, if any, that may have a lesser water supply impact; and

(2) Give great weight in any analysis of potential jeopardy to whether incidental take levels in the applicable biological opinions are likely to be exceeded by the proposed action or are on track to being exceeded by the proposed action and other actions.

#### (e) Other environmental protections.

- 1) The Secretaries' actions under this section shall be consistent with applicable regulatory requirements under state law, including State Water Resources Control Board Decision 1641, as it may be implemented in any given year, are met;
- 2) This section shall not have any effect on the applicable requirements of the salmonid biological opinion from April 1 to May 31, unless the Secretary of Commerce finds that some or all of such applicable requirements may be relaxed during this time period to provide emergency water supply relief without causing jeopardy;
- 3) During operations under this section, the Commissioner of Reclamation, in coordination with the Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Wildlife, shall undertake a monitoring program and other data gathering to insure take limits levels are not exceeded, and to identify potential actions to mitigate any impacts to species listed as threatened or endangered under the Endangered Species Act, 16 U.S.C. 1531-1544; and
- 4) The Commissioner is authorized to take any action, including the transfer of appropriated funds between accounts that, in the Commissioner's judgment, are necessary to mitigate the impacts of such operations as long as any such mitigation is consistent with the requirements off this section.

(f) Technical adjustments to target period. If, before the goal in subsection (b) is met, the Secretaries operate the Central Valley Project and the State Water Project combined at levels that result in Old and Middle River flows less negative than -7500 cubic feet per second during days of high outflow as defined in subsection (c), the duration of such operation shall not be counted toward the 21 cumulative days specified in subsection (b).

(g) Effect on running averages. For the purpose of carrying out subsection (b), the periods during which the combined operations of Central Valley Project and the State Water Project result in Old and Middle River flows more negative than -5000 cubic feet per second, and the actual flow rates during such periods, shall not be counted toward the 5-day and 14-day running averages of tidally filtered daily Old and Middle River flow requirements under the biological opinions.

(h) Level of detail required for analysis. In articulating the determinations required under this section, the Secretaries shall fully satisfy the requirements herein but shall not be expected to provide a greater level of supporting detail for the analysis than feasible to provide within the short time frame permitted for timely decision-making in response to changing conditions in the Delta.

(i) Duration. This section shall expire when the Governor of California revokes his emergency drought declaration.

#### SEC. 310. EXPEDITING WATER TRANSFERS.

- (a) In General.—Section 3405(a) of the Central Valley Project Improvement Act (Public Law 102–575; 106 Stat. 4709(a)) is amended—
- by redesignating paragraphs (1) through (3) as paragraphs (4) through (6), respectively;
  - (2) in the matter preceding paragraph (4) (as so designated)—
    - (A) in the first sentence, by striking "In order to" and inserting the following:
  - "(1) IN GENERAL.—In order to"; and
    - (B) in the second sentence, by striking "Except as provided herein" and inserting the following:

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- "(3) TERMS.—Except as otherwise provided in this section"; and
- (3) by inserting before paragraph (3) (as so designated) the following:
- "(2) EXPEDITED TRANSFER OF WATER.—The Secretary shall take all necessary actions to facilitate and expedite transfers of Central Valley Project water in accordance with—
  - "(A) this Act;

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- "(B) any other applicable provision of the reclamation laws; and
- "(C) the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).";
- (4) in paragraph (4) (as so designated)—
  - (A) in subparagraph (A), by striking "to combination" and inserting "or combination"; and
    - (B) by striking "3405(a)(2) of this title" each place it appears and inserting "(5)";
- (5) in paragraph (5) (as so designated), by adding at the end the following:
  - "(E) The contracting district from which the water is coming, the agency, or the Secretary shall determine if a written transfer proposal is complete within 45 days after the date of submission of the proposal. If the contracting district or agency or the Secretary determines that the proposal is incomplete, the district or agency or the Secretary shall state with specificity what must be added to or revised for the proposal to be complete."; and
- (6) in paragraph (6) (as so designated), by striking "3405(a)(1)(A)-(C), (E), (G), (H), (I), (L), and (M) of this title" and inserting "(A) through (C), (E), (G), (H), (I), (L), and (M) of paragraph (4)".
- (b) Conforming Amendments.—The Central Valley Project Improvement Act (Public Law 102–575) is amended—
  - (1) in section 3407(c)(1) (106 Stat. 4726), by striking "3405(a)(1)(C)" and inserting

"3405(a)(4)(C)"; and 1 (2) in section 3408(i)(1) (106 Stat. 4729), by striking "3405(a)(1) (A) and (J) of this title" 2 and inserting "subparagraphs (A) and (J) of section 3405(a)(4)" 3 SEC. 311. WARREN ACT CONTRACTS. [To be supplied.] 5 SEC. 312. ADDITIONAL WARREN ACT CONTRACTS. 6 7 [To be supplied.] TITLE IV—INCREASING WATER STORAGE 8 SEC. 401. FINDINGS. 9 Congress finds that-10 (1) the record drought conditions being experienced in the State as of the date of 11 12 enactment of this Act are-13 (A) expected to recur in the future; and (B) likely to do so with increasing frequency; 14 15 (2) water storage is an indispensable and integral part of any solution to address the longterm water challenges of the State; 16 (3) Congress authorized relevant feasibility studies for 4 water storage projects in the 17 18 State, including projects for— (A) enlargement of Shasta Dam in Shasta County under section 2(a) of Public Law 19 96-375 (94 Stat. 1506), as reaffirmed under section 103(d)(1)(A)(i)(I) of Public Law 20 108-361 (118 Stat. 1684); 21 (B) enlargement of Los Vaqueros Reservoir in Contra Costa County under section 22 23 215 of Public Law 108-7 (117 Stat. 147), as reaffirmed under section 103(d)(1)(A)(i)(II) of Public Law 108-361 (118 Stat. 1684); 24 (C) construction of North-of-Delta Offstream Storage (Sites Reservoir) in Colusa 25 County under section 215 of Public Law 108-7 (117 Stat. 147), as reaffirmed under 26 section 103(d)(1)(A)(ii)(I) of Public Law 108-361 (118 Stat. 1684); and 27 28 (D) construction of the Upper San Joaquin River storage (Temperance Flat) in Fresno and Madera Counties under section 215 of Public Law 108-7 (117 Stat. 147), 29 30 as reaffirmed under section 103(d)(1)(A)(ii)(II) of Public Law 108-361 (118 Stat. 31 1684); 32 (4)(A) as of the date of enactment of this Act, it has been more than 10 years since the

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Commented [BW7]: These provisions on Warren contracts need a SWP savings clause that SWP water supply will not be harmed

(B) complete and final feasibility studies have not been prepared for any of those water

authorization of the feasibility studies referred to in paragraph (3); but

storage projects;

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1	completed draft feasibility studies;
2	(6) the slow pace of work on completion of the feasibility studies for those 4 water storage projects is—
4	(A) unjustified; and
5	(B) of deep concern; and
6 7 8 9	(7) there is significant public interest in, and urgency with respect to, completing all feasibility studies and environmental reviews for the water storage projects referred to in paragraph (3), given the critical need for that infrastructure to address the water challenges of the State.
10	SEC. 402. CALFED STORAGE FEASIBILITY STUDIES.
11 12 13 14	(a) In General.—Notwithstanding subparagraph (B)(i) of section 103(d)(1) of Public Law 108–361 (118 Stat. 1684), the Secretary of the Interior, acting through the Commissioner of Reclamation (referred to in this title as the "Secretary"), shall complete a final feasibility study and any other applicable environmental review documents for the project described in—
15	[(1) subparagraph (A)(i)(I) of that section by not later than December 31, 2014;]
16	_[(2) subparagraph (A)(ii)(I) of that section by not later than July 1, 2015; and]
17	(b) Environmental Reviews.—In carrying out subsection (a), the Secretary—
18	(1) shall ensure that—
19 20 21	(A) all applicable reviews, including reviews required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), are completed as expeditiously as practicable; and
22 23	(B) the shortest applicable process under that Act is used, including in the completion of—
24	(i) feasibility studies;
25	(ii) draft environmental impact statements; and
26	(iii) final environmental impact statements; and
27 28 29	(2) shall not be required to complete a draft or final environmental impact statement if the Commissioner of Reclamation determines, and the Secretary concurs, that the project fails to meet applicable Federal cost-benefit requirements or standards.
30	(c) Accountability.—
31 32 33 34 35 36	(1) If the Bureau of Reclamation determines that an environmental review document for the water storage projects referenced in of Section 103(d)(1) of P.L. 108-361 will not be completed according to the schedule specified in subsection (a), the Bureau shall notify the Senate Committee on Energy and Natural Resources, the Senate Appropriations Subcommittee on Energy and Water Development, and the House of Representatives Transportation and Infrastructure Committee within 14 days of the determination. The notification shall include:
37	(A) An explanation of the delay:

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- (B) The anticipated length of the delay and the revised completion date:
- (C) The steps that the Bureau will take to mitigate the delay, including, but not limited to, a request to reprogram existing funds appropriated to the Bureau to meet the revised completion deadline.
- (b) The Bureau of Reclamation shall carry out the procedures in subsection (a) for each subsequent delay beyond the revised completion deadline.

(1) IN GENERAL. [Subject to paragraph (2),] if the Secretary fails to complete a feasibility study or environmental review required for any water storage project referred to in subsection (a) in accordance with the schedule specified in that subsection, the amounts made available to the Policy and Administration Account of the Bureau of Reclamation for fiscal year 2015 shall be withheld and reduced by an amount equal to the product obtained by multiplying

#### SEC. 403. WATER STORAGE PROJECT CONSTRUCTION.

(a) The Secretary, acting through the Commissioner of the Bureau of Reclamation, may partner or enter into an agreement on the water storage projects identified in section 103(d)(1) of the Water Supply Reliability and Environmental Improvement Act (Public Law 108-361) (and Acts supplemental and amendatory to the Act) with local joint powers authorities formed pursuant to State law by irrigation districts and other local water districts and local governments within the applicable hydrologic region, to advance those projects.

(b) [PLACEHOLDER - AUTHORIZATION ISSUE]

#### SEC. 403404. OTHER STORAGE FEASIBILITY STUDIES.

- (a) Definition of Qualifying Project.—In this section, the term "qualifying project" means [TO BE SUPPLIED].
  - (b) Lead Agency.—

- (1) QUALIFYING PROJECTS WITHIN JURISDICTION OF BUREAU OF RECLAMATION.—The Bureau of Reclamation shall serve as the lead agency for purposes of coordinating all reviews, analyses, opinions, statements, permits, licenses, and other approvals or decisions required under Federal law (including regulations) to construct qualifying projects within the jurisdiction of the Bureau.
- (2) QUALIFYING PROJECTS OUTSIDE JURISDICTION OF BUREAU OF RECLAMATION.—If the site of a qualifying project is not located in a State in which the Bureau of Reclamation has jurisdiction, the Secretary shall, by not later than 45 days after the date of receipt of an application for the qualifying project—
  - (A) designate an alternate agency within the Department of the Interior to serve as the lead agency for purposes of coordinating all reviews, analyses, opinions, statements, permits, licenses, and other approvals or decisions required under Federal law (including regulations) to construct the qualifying project; or
  - (B) in consultation with the heads of other Federal departments and agencies, identify the appropriate lead agency for the qualifying project.

1	(c) Cooperating Agencies.—
2	(1) FEDERAL DEPARTMENTS AND AGENCIES.—The lead agency designated under paragraph (1) or (2) of subsection (b) shall—
4 5 6 7	(A) as soon as practicable after receipt of an application for a qualifying project, identify any Federal department or agency that may have jurisdiction over a review, permit, license, approval, or decision required for the qualifying project under applicable Federal laws (including regulations); and
8	(B) as soon as practicable after the date of identification under subparagraph (A)—
9	(i) notify each applicable department or agency of the identification; and
10 11	(ii) designate the department or agency as a cooperating agency, unless the department or agency—
12	(I) has no jurisdiction or authority with respect to the qualifying project;
13 14 15	<ul> <li>(II) has no expertise or information relevant to the qualifying project or any review, permit, license, approval, or decision associated with the qualifying project; or</li> </ul>
16	(III) does not intend—
17	(aa) to submit comments regarding the qualifying project; or
18 19 20	(bb) to conduct any review of the qualifying project or make any decision with respect to the qualifying project in a manner other than in cooperation with the Bureau of Reclamation.
21 22 23 24	(2) STATES.—A State in which a qualifying project is proposed to be carried out may elect, consistent with Federal and State law, to participate as a cooperating agency, if the lead agency designated for the proposed qualifying project under paragraph (1) or (2) of subsection (b) determines that the applicable agency of the State—
25 26	(A) has jurisdiction over the qualifying project under applicable Federal or State law;
27	(B) is required to conduct or issue a review of the qualifying project; and
28 29	(C) is required to make a determination regarding issuing a permit, license, or approval of the qualifying project.
30	(d) Duties of Lead Agency.—
31 32 33 34	(1) IN GENERAL.—Not later than 30 days after the date of receipt of an [application for approval of] a qualifying project, the lead agency shall hold a meeting among the applicant, the lead agency, and all cooperating agencies to establish, with respect to the qualifying project, all applicable—
35	(A) requirements;
36	(B) review processes; and
37	(C) stakeholder responsibilities.
38	(2) SCHEDULE.—
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1 2 3 4	(A) ESTABLISHMENT.—Not later than 30 days after the date of the meeting under paragraph (1), the lead agency, in consultation with the attendees of the meeting, shall establish a schedule for completion of the qualifying project, taking into consideration, among other relevant factors—
5 6	<ul> <li>(i) the responsibilities of cooperating agencies under applicable laws and regulations;</li> </ul>
7 8	(ii) the resources available to the cooperating agencies and non-Federal project stakeholders;
9	(iii) the overall size and complexity of the qualifying project;
10	(iv) the overall schedule for, and cost of, the qualifying project; and
11 12	(v) the sensitivity of the natural and historic resources that may be affected by the qualifying project.
13 14	(B) REQUIREMENTS.—On establishment of a schedule for a qualifying project under subparagraph (A), the lead and cooperating agencies shall—
15	(i) to the maximum extent practicable, adhere to the schedule; and
16 17 18 19	(ii) submit to the Committee on Environment and Public Works of the Senate and the Committee on Natural Resources of the House of Representatives on a semiannual basis a report describing any delays in the schedule, including a description of—
20	(I) the reasons for the delay;
21 22	(II) the actions that the lead and cooperating agencies will take to minimize the delay; and
23	(III) a revised schedule for the qualifying project, if applicable.
24	(e) Environmental Reviews.—
25	(1) SINGLE, UNIFIED ENVIRONMENTAL REVIEW DOCUMENT.—
26 27 28 29 30	(A) IN GENERAL.—The lead agency with respect to a qualifying project, in consultation with appropriate stakeholders and cooperating agencies, shall determine whether a single, unified environmental review document relating to the qualifying project is sufficient to comply with applicable Federal laws (including regulations), including the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).
31 32 33	(B) ACTION ON DECLINATION.—If, after consultation under subparagraph (A), a lead agency determines not to adopt a single, unified environmental review document relating to a qualifying project—
34	(i) the lead agency shall—
35	(I) document the reasons for the determination; and
36	(II) submit to the Secretary a report describing those reasons; and
37 38	(ii) the Secretary may require the adoption of a single, unified document at the discretion of the Secretary, based on good cause.

1 2 3 4	(2) ENVIRONMENTAL ASSESSMENT.—If the lead agency with respect to a qualifying project, in consultation with cooperating agencies, determines that an environmental assessment is sufficient to comply with the requirements of this subsection and other applicable Federal laws (including regulations)—
5 6	(A) the public comment period for a draft environmental assessment shall be [] days; and
7 8 9	(B) the lead agency shall issue the final environmental assessment by not later than [] days after the end of the period for public comments on the draft environmental assessment.
10 11 12 13	(3) ENVIRONMENTAL IMPACT STATEMENT.—If the lead agency with respect to a qualifying project, in consultation with cooperating agencies, determines that an environmental impact statement is required to comply with the requirements of this subsection and other applicable Federal laws (including regulations)—
14 15	(A) the public comment period for a draft environmental impact statement shall be days; and
16 17 18	(B) the lead agency shall issue the final environmental impact statement by not later than [] days after the end of the period for public comments on the draft environmental assessment.
19	(4) MODIFICATION OF SCHEDULE.—In carrying out paragraphs (2) and (3)—
20 21 22	(A) the lead agency with respect to a qualifying project, in consultation with the cooperating agencies, may modify the schedule of the qualifying project for good cause; and
23 24 25	(B) on making a modification under subparagraph (B), the head of the lead agency shall submit to Congress a written determination describing the cause and reasons for the modification.
26 27	(5) REQUIREMENTS.—On commencement of the environmental review process under this subsection, the lead and cooperating agencies shall, as soon as practicable—
28 29	(A) make available to all stakeholders of the qualifying project information regarding—
30 31	(i) the environmental and socioeconomic resources located within the area of the qualifying project; and
32	(ii) the general locations of the alternatives under consideration; and
33 34 35 36	(B) identify any issues of concern regarding the potential environmental or socioeconomic effects of the qualifying project, including any issues that could substantially delay or prevent an agency from granting a permit or other approval that is needed for a study relating to the qualifying project.
37	(f) Concurrent Review Actions.—
38 39	(1) IN GENERAL.—Any review, analysis, permit, license, approval, or decision regarding qualifying project made by a Federal, State, or local government agency shall be—
40	(A) conducted, to the maximum extent practicable, concurrently with any other

applicable government agency; and 1 (B) incorporated in the schedule for the qualifying project under subsection (d)(2). 2 (2) REQUIREMENT.—The lead and cooperating agencies for a qualifying project shall 3 4 formulate and implement administrative, policy, and procedural mechanisms to enable adherence to the schedule for the qualifying project in a timely, coordinated, and 5 environmentally responsible manner. 6 7 (3) GUIDANCE.—The Secretary shall issue guidance regarding the use of programmatic 8 approaches to carry out the environmental review process that, to the maximum extent practicable-9 (A) eliminates repetitive discussions of the same issues; 10 (B) focuses on the actual issues ripe for analysis at each level of review; 11 (C) establishes a formal process for coordinating with participating and cooperating 12 agencies, including the establishment of a list of all data required to carry out an 13 environmental review process; and 14 (D) complies with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 15 et seq.) and all other applicable laws and regulations. 16 (g) Administrative Record and Data Management.-17 IN GENERAL.—The lead agency shall— 18 (A) be responsible for compiling the administrative record of the information used 19 20 as the basis for decisions relating to a qualifying project; and 21 (B) to the maximum extent practicable and consistent with Federal law, make available all data regarding the qualifying project in a format that is accessible via 22 23 electronic means for project stakeholders, cooperating agencies, and the public. 24 (2) REPORTS.—Not less frequently than once each year, the lead agency shall submit a 25 progress report regarding a qualifying project to project stakeholders, cooperating agencies, 26 the Committee on Environment and Public Works of the Senate, and the Committee on 27 Natural Resources of the House of Representatives. 28 (h) Participation by Non-Federal Project Sponsors.— 29 (1) APPLICATION TO SERVE AS LEAD OR COLEAD COOPERATING AGENCY.—A non-Federal sponsor of a qualifying project may submit to the lead Secretary an application to serve as 30 31 the lead agency or coleada cooperating agency of the qualifying project for purposes of preparing any necessary documents relating to the qualifying project, including an 32 33 environmental review, if-34 (A) the non-Federal sponsor is a public agency as defined under the laws of the state 35 in which the agency is located; (AB) the non-Federal sponsor agrees to adhere to-36 37 (i) all required Federal laws (including regulations) in carrying out the qualifying project; and 38 39 (ii) all decisions regarding the qualifying project that have been agreed on by

1	other stakeholders of the qualifying project; and
2 3 4	(BC) the applicable lead agency certifies that participation by the non-Federal sponsor will not inappropriately bias the qualifying project in favor of the non-Federal sponsor.
5	(2) FUNDS.—Any funds contributed by a non-Federal sponsor to a qualifying project—
6 7	(A) may be accepted to maintain or accelerate progress on the qualifying project, subject to the condition that the Secretary shall—
8	(i) review the use of the funds; and
9	(ii) certify in writing that the funds—
10	(I) are used solely to complete applicable environmental reviews; and
11 12	<ul> <li>(II) do not unduly influence any permit or approval decision regarding the qualifying project; and</li> </ul>
13	(B) shall be applied toward the non-Federal cost-share of the qualifying project.
14 15 16 17	(i) Applicability to Calfed Storage Studies.—For any feasibility study referred to in section 401(3), this section shall apply to all activities to be carried out under the study on or after the date of enactment of this Act that would lead to congressional authorization of an applicable project for construction.
18 19	SEC. 404405. DAM SAFETY PROJECTS WITH INCREASED STORAGE COMPONENT.
20	(a) Additional Project Benefits.—The Reclamation Safety of Dams Act of 1978 is amended—
21 22	(1) in section 3 (43 U.S.C. 507), by striking "Construction" and inserting "Except as provided in section 5B, construction"; and
23	(2) by inserting after section 5A (43 U.S.C. 509a) the following:
24	"SEC. 5B. ADDITIONAL PROJECT BENEFITS.
25 26 27	"(a) In General.—Notwithstanding section 3, subject to subsection (c), if the Secretary, in the judgment of the Secretary, makes a determination described in subsection (b), the Secretary may develop any additional project benefit—
28 29	" $(1)$ in conjunction with the activities carried out by the Secretary pursuant to section 2; and
30	"(2) subject to the conditions described in the feasibility study relating to the project.
31 32	"(b) Description of Determination.—A determination referred to in subsection (a) is a determination by the Secretary that—
33	"(1) an additional project benefit, including additional conservation storage capacity, is-
34	"(A) necessary; and
35	"(B) in the interests of the United States; and

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1	"(2) the project [benefit] proposed to be carried out is—
2	"(A) feasible; and
3	"(B) not inconsistent with the purposes of this Act.
<b>4</b> 5	"(c) Requirements.—The costs associated with developing an additional project benefit under this section shall be—
6 7	"(1) <u>assuming agreement can be reached among state and federal funding agencies,</u> allocated in accordance with the authorized purposes of the relevant project; and
8 9 10	"(2) repaid in accordance with all applicable provisions of Federal reclamation law (the Act of June 17, 1902 (32 Stat. 388, chapter 1093), and Acts supplemental to and amendatory of that Act (43 U.S.C. 371 et seq.)."
11 12	(b) San Luis Reservoir Expansion.—Section 103(f)(1)(A) of Public Law 108–361 (118 Stat. 1694) is amended—
13	(1) by striking "Funds" and inserting the following:
14	"(i) IN GENERAL.—Funds"; and
<b>1</b> 5	(2) by adding at the end the following:
16 17	"(ii) Environmental reviews and feasibility study.—The Commissioner of Reclamation shall submit [to Congress]—
18 19	"(I) an expansion draft environmental impact statement and feasibility study relating to the San Luis Reservoir by not later than April 1, 2016; and
20 21	"(II) a final environmental impact statement relating to the San Luis Reservoir by not later than December 31, 2016.".
22 23 24	(c) Sisk Dam and Related Facilities Safety of Dams Corrective Actions—All costs of corrective actions needed to reduce risk to Sisk Dam and related facilities from seismic activity should be borne by the United States to the extent set forth in 43 U.S.C §508(c).
25	SEC. 406. UPDATING WATER OPERATIONS MANUALS
26	FOR NON-FEDERAL PROJECTS.
27	(a) Definitions.—In this section:
28	(1) NON-FEDERAL PROJECT.—
29 30 31 32	(A) IN GENERAL.—The term "non-Federal project" means a non-Federal reservoir project operated for flood control in accordance with rules prescribed by the Secretary pursuant to section 7 of the Act of December 22, 1944 (commonly known as the "Flood Control Act of 1944") (58 Stat. 890, chapter 665).
33 34	(B) EXCLUSION.—The term "non-Federal project" does not include any dam or reservoir owned by—
35	(i) the Bureau of Reclamation; or
36	(ii) the Corps of Engineers.

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Commented [BW8]: Under the San Luis Unit authorizing legislation (P.L. 86-488), Sisk Dam and the joint facilities were authorized for use by both the federal Central Valley Project and the State of California, but Reclamation retained ownership of all facilities. For that reason, Reclamation should bear 85% of the costs of modifying the San Luis Unit pursuant to the Safety of Dams program, without reimbursement, while 15% of the costs should be allocated to the federal and state authorized purposes of the dam.

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- - (A) the Secretary;
  - (B) the Secretary of the Interior; or
  - (C) the head of any other Federal department or agency, notwithstanding any Federal monetary contribution made toward the construction cost of the relevant non-Federal project, if the contribution is predicated a on flood control or other specific
- (3) SECRETARY.—The term "Secretary" means the Secretary of the Army.
- (b) Review by Secretary .-

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- (1) IN GENERAL.—Not later than 1 year after the date of receipt of a request from the owner of a non-Federal project, the Secretary, in consultation with the owner, shall review the water control manual and flood control rule curves and any operational or structural modifications proposed by the owner, including the use of improved weather forecasting and run-off forecasting methods, to enhance the existing purposes of the non-Federal
- (2) REPORT.—Not later than 90 days after the date of completion of a review under paragraph (1), the Secretary shall submit to the owner of the applicable non-Federal project a report describing the results of the review.
- (3) PRIORITY.—In carrying out of this subsection, the Secretary shall give priority to review and revision of water control manuals and flood control rule curves for any non-Federal project-
  - (A) that is located in a State in which a drought emergency has been declared during the 1-year period ending on the date of review by the Secretary;
  - (B) the owner of which has submitted to the Secretary a formal request to review or revise the operations manual or rule curves to accommodate new watershed data or proposed project modifications or operational changes;
  - (C) the water control manual and hydrometeorological information establishing the flood control rule curves of which have not been revised during the 20-year period ending on the date of review by the Secretary;
  - (D) with respect to which a completed probable maximum flood analysis or other data indicates that revisions of the project control manual or rule curves are likely to enhance water supply benefits and flood control operations; and
  - (E) modifications or operational changes proposed by the owner of which are likely to enhance water supply benefits and flood control operations.
- (4) NON-FEDERAL CONTRIBUTIONS.—The Secretary may accept non-Federal funds for all or a portion of the cost of carrying out a review or revision of water control manuals and rule curves for non-Federal projects under this subsection.

### SEC. 406407. CENTRAL VALLEY PROJECT.

(a) Cooperative Agreements.—

(1) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, to determine the feasibility of an agreement for long-term use of an existing or expanded non-Federal storage or conveyance facility to augment Federal water supply, ecosystem, and operational flexibility benefits, the Secretary shall offer to enter into cooperative agreements with non-Federal entities to provide replacement water supplies for drought relief for—

- (A) contractors of the Central Valley Project (as defined in section 3403 of the Central Valley Project Improvement Act (Public Law 102–575; 106 Stat. 4706));
  - (B) units of the National Wildlife Refuge System;
  - (C) State wildlife areas; and
  - (D) private wetland areas.

- (2) REQUIREMENTS.—A cooperative agreement under this subsection shall—
  - (A) include the purchase of storage capacity in non-Federal facilities from willing sellers; and
  - (B) provide reimbursement for the temporary use of available capacity in existing above-ground, off-stream storage and associated conveyance facilities owned by local water agencies.

(b) Report.—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit to the Chief of the National Wildlife Refuge System and contractors of the Central Valley Project a report describing the feasibility of the agreement for long-term use described in subsection (a)(1).

# SEC. 501. PROTECTIONS FOR STATE WATER PROJECT CONTRACTORS.

[we expect language for this critically important provision will be provided on Monday]

#### 24 SEC. 502. AREA OF ORIGIN PROTECTIONS.

[To be supplied](a) The Secretary of the Interior (Secretary) is directed in the operation of the Central Valley Project (CVP) to adhere to California's water rights laws governing water rights priorities by honoring water rights senior to those held by the United States for operation of the CVP, regardless of the source of priority, including any appropriative water rights initiated prior to December 19, 1914, as well as water rights and other priorities perfected or to be perfected pursuant to California Water Code Part 2 of Division 2. Article 1.7 (commencing with section 1215 of Chapter 1 of Part 2 of Division 2, Sections 10505, 10505.5, 11128, 11460, 11461, 11462 and 11463, and Sections 12200 to 12220, inclusive).

(b) Any action that requires that diversions be bypassed or that involves the release of water from any CVP water storage facility taken by the Secretary or the Secretary of the Department of Commerce pursuant to Section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531, et seq.) shall be applied in a manner that is consistent with water rights priorities established by California law.

SEC. 503. NO REDIRECTED ADVERSE IMPACTS.

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1 The Secretary shall ensure that, except as otherwise provided for in a water service or

2 repayment contract, actions taken in compliance with legal obligations imposed pursuant to or as

- a result of this Act, including, but not limited to, such actions under the Endangered Species Act
- 4 of 1973 (16 U.S.C. § 1531 et seq.) and other federal laws, shall not cause redirected adverse
- water supply or fiscal impacts to those within the Sacramento River Watershed or the State
- 6 Water Project.

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- 7 SEC. 503504. SACRAMENTO RIVER SETTLEMENT
- 8 CONTRACTS.
- 9 [potential language under discussion].
- 10 SEC. 505. EFFECT ON STATE LAWS.
- Nothing in this Act preempts any State law in effect on the date of enactment of this Act,
- 12 including area of origin and other water rights protections.
- 13 TITLE VI—MISCELLANEOUS
- 14 SEC. 601. AUTHORIZED SERVICE AREA.
  - (a) In General.—The authorized service area of the Central Valley Project authorized under the Central Valley Project Improvement Act (Public Law 102–575; 106 Stat. 4706) shall include the area within the boundaries of the Kettleman City Community Services District, California, as in existence on the date of enactment of this Act.
  - (b) Long-term Contract.—
    - (1) IN GENERAL.—Notwithstanding the Central Valley Project Improvement Act (Public Law 102–575; 106 Stat. 4706) and subject to paragraph (2), the Secretary of the Interior, in accordance with the reclamation laws, shall enter into a long-term contract with the Kettleman City Community Services District, California, under terms and conditions mutually agreeable to the parties, for the delivery of up to 900 acre-feet of Central Valley Project water for municipal and industrial use.
    - (2) LIMITATION.—Central Valley Project water deliveries authorized under the contract entered into under paragraph (1) shall be limited to the minimal quantity necessary to meet the immediate needs of the Kettleman City Community Services District, California, in the event that local supplies or State Water Project allocations are insufficient to meet those needs.
  - (c) Permit.—The Secretary shall apply for a permit with the State for a joint place of use [for water deliveries authorized under the contract entered into under subsection (b)? with respect to the expanded service area under subsection (a)?], consistent with State law.
- (d) Additional Costs.—If any additional infrastructure, water treatment, or related costs are
   needed to implement this section, those costs shall be the responsibility of the non-Federal entity.
- 36 SEC. 602. RESCHEDULED WATER.
- 37 (a) In General.—In connection with operations of the Central Valley Project, California, if the

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San Luis Reservoir does not fill by the last day of February of any year, the Secretary of the
Interior shall permit any entity with an agricultural water service or repayment contract for the
delivery of water from the Delta Division or the San Luis Unit to reschedule into the
immediately following contract year (March 1 through the last day of February) any unused
Central Valley Project water previously allocated for irrigation purposes.

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- (b) Apportionment.—If water remaining in Federal storage in San Luis Reservoir on the last day of February of any year is insufficient to meet all rescheduling requests under subsection (a), the Secretary of the Interior shall, based on contract quantity, apportion among all contractors that request to reschedule water all water remaining in San Luis Reservoir on the last day of February of the applicable year.
- (c) Availability of Additional Water.—The Secretary shall make all reasonable efforts to make
   available additional rescheduled water, if the efforts do not interfere with the Central Valley
   Project operations in the contract year for which Central Valley Project water has been
   rescheduled.

#### 15 SEC. 603. FISHERIES DISASTER DECLARATION.

16 [TO BE SUPPLIED.]

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### 17 SEC. 604. OVERSIGHT BOARD FOR RESTORATION 18 FUND.

- (a) Report; Advisory Board.—Section 3407 of the Central Valley Project Improvement Act (Public Law 102–575; 106 Stat. 4726) is amended by adding at the end the following:
- "(g) Report on Expenditure of Funds.—
  - "(1) IN GENERAL.—For each fiscal year, the Secretary, in consultation with the Advisory Board, shall submit to Congress a plan for the expenditure of all of the funds deposited into the Restoration Fund during the preceding fiscal year.
  - "(2) CONTENTS.—The plan shall include an analysis of the cost-effectiveness of each expenditure.
- "(h) Advisory Board.-
  - "(1) ESTABLISHMENT.—There is established the Restoration Fund Advisory Board (referred to in this section as the 'Advisory Board'), which shall be composed of 20 members appointed by the Secretary.
    - "(2) MEMBERSHIP.—
      - "(A) IN GENERAL.—The Secretary shall appoint members to the Advisory Board that represent the various Central Valley Project stakeholders, of whom—
        - "(i) 4 members shall be agricultural users of the Central Valley Project;
        - "(ii) 3 members shall be municipal and industrial users of the Central Valley Project;
          - "(iii) 3 members shall be power contractors of the Central Valley Project;
- "(iv) 2 members shall be contractors of the [\_\_\_\_] Refuge;

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1 2	"(v) 2 members shall represent nongovernmental organizations involved in the protection and restoration of California fisheries;
3	"(vi) 1 member shall represent the commercial fishing industry;
4	"(vii) 1 member shall represent the recreational fishing industry;
5	"(viii) 1 member shall represent the National Marine Fisheries Service;
6	"(ix) 1 member shall represent the California Fish and Wildlife Service; and
7	"(x) 2 members shall be appointed at the discretion of the Secretary.
8 9	"(B) OBSERVER.—The Secretary and the Secretary of Commerce may each designate a representative to act as an observer of the Advisory Board.
10 11	"(C) CHAIRMAN.—The Secretary shall appoint 1 of the members described in subparagraph (A) to serve as Chairman of the Advisory Board.
12	"(3) TERMS.—The term of each member of the Advisory Board shall be 4 years.
13	"(4) DUTIES.—The duties of the Advisory Board are—
L4 L5 L6	"(A) to meet not less frequently than semiannually to develop and make recommendations to the Secretary regarding priorities and spending levels on projects and programs carried out under this title;
17 18	"(B) to ensure that any advice given or recommendation made by the Advisory Board reflects the independent judgment of the Advisory Board;
19 20	"(C) not later than December 31, 2015, and annually thereafter, to submit to the Secretary and Congress the recommendations under subparagraph (A); and
21 22 23	"(D) not later than December 31, 2015, and biennially thereafter, to submit to Congress a report that details the progress made in achieving the actions required under section 3406.
24 25	"(5) ADMINISTRATION.—With the consent of the appropriate agency head, the Advisory Board may use the facilities and services of any Federal agency.".
26	SEC. 605. JUDICIAL/ADMINISTRATIVE REVIEW.
27	[PLACEHOLDER – LANGUAGE OPTIONS ATTACHED SEPARATELY]
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29	SEC. 606. WATER OPERATIONS REVIEW PANEL.
30 31	(a) Establishment.—There is established a panel to be known as the "Water Operations Review Panel".
32	(b) Membership.—
33 34	(1) COMPOSITION.—The Panel shall be composed of 5 members appointed by the Secretary of the Interior, in consultation with the Secretary of Commerce, of whom—
35 36	(A) 1 member shall be a former State elected official, who shall be the Chairperson of the Panel:

1	(B) 2 members shall be fisheries biologists, of whom—
2	(i) 1 member shall have expertise in Delta smelt; and
3	(ii) 1 member shall have expertise in salmonids; and
4	(C) 2 members shall have be engineers with substantial expertise in water
5	operations.
6	(2) RECOMMENDATIONS. —The Secretary of the Interior shall consider the
7 8	recommendations of the Governor of the State for the member appointed under subparagraph (A) and the recommendations of the Collaborative Science Adaptive
9	Management Program policy group for the members appointed under subparagraphs (B)
10	and (C).
11	(3) PROHIBITION ON FEDERAL GOVERNMENT EMPLOYMENT.—For at least three years prior
12	to appointment to the Panel, an individual appointed to the Panel under paragraph (1) shall
13	not have been an employee of the Federal Government.
14	(4) DATE OF APPOINTMENTS.—The appointment of a member of the Panel shall be made
15	not later than—
16	(A) the date that is 120 days after the date of enactment of this Act; or
17	(B) in the case of a vacancy on the Panel described in subsection (c)(2), the date that
18	is 120 days after the date on which the vacancy occurs.
19	(c) Term; Vacancies.—
20 21	(1) TERMS.—A member of the Panel shall be appointed for a term of 3 years, except that, with respect to the members first appointed under this section—
22	(A) the Chairperson shall be appointed for a term of 3 years;
23	(B) of the members appointed under subsection (b)(1)(B)—
24	(i) 1 member shall be appointed for a term of 1 year; and
25	(iii) 1 member shall be appointed for a term of 2 years:
26	(C) of the members appointed under subsection (b)(1)(C)—
27	(i) 1 member shall be appointed for a term of 1 year; and
28	(ii) 1 member shall be appointed for a term of 2 years.
29	(2) VACANCIES.—
30	(A) IN GENERAL.—A vacancy on the Panel shall be filled in the manner in which the
31	original appointment was made and shall be subject to any conditions that applied with
32	respect to the original appointment.
33	(B) FILLING UNEXPIRED TERM.—An individual chosen to fill a vacancy shall be appointed for the unexpired term of the member replaced.
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35 36	(3) EXPIRATION OF TERMS.—The term of any member shall not expire before the date on which the successor of the member takes office.
37	(d) Removal –A Member of the Panel may be removed from office by the Secretary of the
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1	interior.
2	(e) Federal Advisory Committee Act. —The Panel shall not be subject to the requirements of the Federal Advisory Committee Act.
4	(f) Duties.
5	(1) Assessment and Report on Agencies' Operational Decisions under this Act.—
6 7 8 9	(A) IN GENERAL.—No later than November 30, 2015, and annually no later than November 30 thereafter, the Panel shall report an assessment of the agencies' operational decisions under this Act and recommendations for the prospective implementation of this Act to the following Congressional committees:
10	(i) Senate Committee on Environment and Public Works;
11	(ii) Senate Appropriations Subcommittee on Energy and Water Development:
12	(iii) House Natural Resources Committee; and
13	(iv) House Appropriations Subcommittee on Energy and Water Development.
14 15 16	(B) RETROSPECTIVE ASSESSMENT.—In making the retrospective assessment under paragraph (1), the Panel shall review and evaluate the Director of the Fish and Wildlife Service, Administrator of NOAA Fisheries, and Commissioner of Reclamation's —
17 18	(i) decisions in implementing this Act and other Federal laws applicable to the operations of the Central Valley Project and the State Water Project;
19 20	(ii) compliance with the Endangered Species Act in relation to operations of the Central Valley Project and the State Water Project; and
21 22	(iii) efforts to minimize water supply disruptions while complying with the Endangered Species Act and this Act.
23 24 25 26	(C) PROSPECTIVE RECOMMENDATIONS.—The Panel shall make recommendations for prospective actions and potential actions warranting further study to better achieve the purposes of this Act and the Endangered Species Act as applied to the operations of the Central Valley Project and the State Water Project, including proposals—
27 28	(i) that in combination, both increase the population of listed species and increase water supplies for the Central Valley Project and the State Water Project;
29 30	(ii) to increase the population of listed fish species with little to no adverse effects on water supplies for the Central Valley Project and the State Water Project; and
31 32	(iii) to increase such water supplies with little to no adverse effects on the population of listed fish species.
33	(2) Submission of Comments and Proposals to Panel.—
34 35	(A) IN GENERAL.—In preparing the reports under subsections (a) and (b), the Panel shall invite comments and proposals from any interested person.
36 37 38	(B) SCHEDULE.—The Panel shall publish a schedule for receipt of comments and proposals under paragraph (1), together with instructions for how to submit the comments and proposals

#### (f) Cooperation and Assistance. ---

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18 19 (1) Upon request of the Panel Chairperson for information or assistance to facilitate the <u>carrying out of this section</u>, the Secretary of Commerce and the Secretary of the Interior shall promptly provide such information, unless otherwise prohibited by law.

(2) Space and Assistance --- The Secretary of the Interior shall provide the Panel with appropriate and adequate office space, together with such equipment, office supplies, and communications facilities and services as may be necessary for the operation of the Panel, and shall provide necessary maintenance services for such offices and the equipment and facilities located therein.

# SEC. 607. CONTINGENCY IN EVENT OF CONTINUING RESOLUTION FOR FISCAL YEAR 2015.

If a resolution providing continuing appropriations for the Fish and Wildlife Service or the National Marine Fisheries Service for fiscal year 2015 is enacted for any date on or after January 1, 2015, and the Secretaries have consulted with the California Department of Water Resources. Central Valley Project and State Water Project contractors, and the Interagency Ecological Program about any possible funding shortfall, the deadlines that apply to each respective Secretary, or agency, contained in sections shall be extended by the number of days such resolution providing continuing appropriations applied to each agency.

20 SEC. 605. SAN JOAQUIN RIVER RESTORATION 21 SETTLEMENT. Formatted: Font: 16 pt, Italic Formatted: Font: 16 pt, Italic Formatted: Font: 16 pt, Italic

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From: Tom Birmingham

**Sent:** Wednesday, August 27, 2014 2:55 PM **To:** 'Patterson,Roger K'; 'Watts, John (Feinstein)' **CC:** 'Bernhardt, David L.'; 'Burman,Brenda W'

**Subject:** RE: Can you guys talk at 6 or 630 eastern time?

#### I too can make a call. At what time and at what number?

**From:** Patterson,Roger K [mailto:RPatterson@mwdh2o.com]

**Sent:** Wednesday, August 27, 2014 2:51 PM **To:** Watts, John (Feinstein); 'Tom Birmingham' **Cc:** Bernhardt, David L.; Burman,Brenda W

**Subject:** RE: Can you guys talk at 6 or 630 eastern time?

I can make either work.

From: Watts, John (Feinstein) [mailto:John Watts@feinstein.senate.gov]

**Sent:** Wednesday, August 27, 2014 2:50 PM **To:** 'Tom Birmingham'; Patterson,Roger K **Cc:** Bernhardt, David L.; Burman,Brenda W

**Subject:** Can you guys talk at 6 or 630 eastern time?

Importance: High

I got some initial feedback on the Administration comments and would like to discuss confidentially.

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From: Tom Birmingham

Sent: Wednesday, August 27, 2014 3:56 PM

To: 'Watts, John (Feinstein)'; 'Yeung, Felix (Feinstein)'

CC: 'Patterson, Roger K'; 'Bernhardt, David L.'

**Subject:** Settlement Contracts

John and Felix,

I suggest the following language as a potential alternative to the language drafted by Stuart:

"Renewal of Existing Sacramento River Settlement Contracts.--The Secretary shall, upon request, renew any existing Sacramento River settlement contract to resolve a dispute between the settlement contractor and the United States concerning the pre-existing water rights of the settlement contractor and for the delivery of water from the Central Valley Project for a period of 40 years and shall renew such settlement contracts for successive periods of up to 40 years each. No such renewals shall be authorized until appropriate environmental review has been completed. Sacramento River settlement contracts that expire or that are set aside by judicial or administrative order prior to the completion of appropriate environmental review shall be renewed under existing terms and conditions for an interim period not to exceed three years in length, and for successive interim periods of not more than two years in length, until the appropriate environmental review has been completed, at which time such interim settlement renewal contracts shall be eligible for long-term renewal as provided above."

This language is modeled after section 3404(c) or the Central Valley Project Improvement Act.

Tom

From: Weaver, Kiel

Sent: Wednesday, August 27, 2014 4:11 PM

To: Tom Birmingham; Nelson, Damon; David Bernhardt

**Subject:** Tomorrow

Hey guys,

I have fallen dangerously behind on my non-California Water and Power duties so plan to be at my desk tomorrow catching up on these things in the morning with the door locked. if you guys need to come up to my office, knock on the other door.

From: Watts, John (Feinstein)

Sent: Wednesday, August 27, 2014 8:23 PM

To: 'tbirmingham@westlandswater.org'; 'RPatterson@mwdh2o.com'; 'BBurman@mwdh2o.com';

'DBernhardt@BHFS.com' CC: Yeung, Felix (Feinstein)

Subject: I apologize, but I have to postpone our meeting/call tomorrow morning

I will let you know when I can reschedule it.

From: Patterson, Roger K

Sent: Wednesday, August 27, 2014 8:35 PM

**To:** Watts, John (Feinstein)

CC: tbirmingham@westlandswater.org; Burman,Brenda W; DBernhardt@BHFS.com; Yeung, Felix (Feinstein)

Subject: Re: I apologize, but I have to postpone our meeting/call tomorrow morning

Ok. Thx.

> On Aug 27, 2014, at 8:23 PM, "Watts, John (Feinstein)" < John\_Watts@feinstein.senate.gov> wrote:

> I will let you know when I can reschedule it.

\_\_\_\_\_

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